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TO READERS AND CORRESPONDENTS.

Drs. HOPTON'S and GARDEN'S Communications have been received.

The plan communicated to us by a Correspondent at Maracaybo, for dissolving Urinary Calculi within the Bladder, by means of a new instrument, is that which originally suggested itself to M. CIVIALE, and which he was compelled to abandon as impracticable. M. Civiale's first design was to destroy the stone by chemical agents, for which purpose he proposed to introduce a purse into the bladder by means of a tube, through which, on securing the stone in the purse, he was to pour in the proper solvent; and it was not until he found this was not practical, that the idea of grinding down the stone occurred to him.

Our notices of articles contained in the American Journals, have been excluded by the press of original communications.

We have received the following works—

Rapport lu a l'Académie Royale de Médecine dans les Séances des 15 Mai et 19 Juin, 1827, au nom de la Commission Chargée d'Examiner les Documents de M. CHERVIN concernant la fiévre jaune. Publié textuellement d'après l'édition de l'Académie, et accompagné de Remarques. Par le Docteur CHERVIN. Paris, 1828. (From Dr. Chervin.)

Examen des Principes de l'Administration en Matière Sanitaire, ou Réponse au Discours Prononcé a la Chambre des Députés, le 31 Mai, 1826, par M. DE BOISBERTRAND, Directeur de l'Administration Générale des établissements d'Utilité Publique. Par N. CHERVIN, Docteur en Médecine, &c. &c. &c. Paris, 1827. (From the author.)

Réponse au Discours de M. le Docteur AUDOUARD, contre le Rapport fait a l'Academie Royale de Médecine de Paris, le 15 Mai, 1827, sur mes Documents concernant la Fiévre Jaune. Par N. CHERVIN, D. M. P., &c. Paris, 1827. (From the author.)

De la Nullité des Prétendus faits de Contagion observés a Barcelone en 1821, ou Deuzieme Réponse a M. AUDOUARD, D. M. M. Par N. CHERVIN, D. M. P., &c. Paris, 1827. (From the author.)

Réponse aux Allégations de M. le Dr. GERARDIN, contre le Rapport de la Commission de l'Académie Royale de Médecine, chargée de l'Examen de mes Documens sur la Fièvre Jaune. Par N. CHERVIN, D. M. P., &c. Paris, 1828. (From the author.)

Traité Général d'Anatomie, Comparée. Par J. F. MECKEL. Traduit de l'ALLEMAND et Augmenté de Notes. Par M. M. RIESTER et ALPH. SANSON, Docteur en Chirurgie de la Faculté de Paris. Tome troisième—II. Partie. Paris, 1829.

A Dissertation on Intemperance, to which was awarded the premium offered by the Massachusetts Medical Society. By WILLIAM SWEETSER, M. D. Professor of the Theory and Practice of Physic in the University of Vermont. (From the author.)

Instructions and Observations concerning the Use of the Chlorides of Soda and Lime. By A. G. LABARRAQUE. Translated by JACOB PORTER. New Haven, 1829. (From the translator.)

Traité de Petite Chirurgie. Par M. BOURGERY, M. D. Paris, 1829. Rouen fréres. (From the publishers.)

Traité d'Hygiéne Appliquée à l'Education de la Jeunesse. Par le Dr. SIMON, de Metz. Rouen frères. (From the publishers.)

Précis Physiologique sur les Courbures de la Colonne Vertébrale, ou Exposé des Moyens de Prévenir et de Corriger les Difformités de la Taille, Particulièrement chez les Jeunes filles, sans le secours des lits Méchanique a Extension. Par C. LACHAISE, D. M. P. &c. &c. Avec six planches. Paris, 1827. Rouen frères. (From the publishers.)

Traité des Maladies du Foie. Par AUGUSTE BONNET, D. M. P. Paris, 1828. Rouen frères. (From the publishers.)

Journal der Chirurgie und Augen-Heilkunde, herausgegeben von C. F. V. GRAEFE und PH. V. WALTHER. Zowölfter Band. Viertes Heft. (In exchange.)

Bibliothek des Practischen Heilkunde. Herausgegeben von C. W. HUFELAND und E. OSANN. September, October, November, December, 1828—January, February, March, April, May, 1829. (In exchange.)

Journal der Practischen Heilkunde. Herausgegeben von C. W. HUFELAND und E. OSANN. September, October, November, December, 1828—January, February, March, April, May, 1829. (In exchange.)

Litterarische Annalen der Gesammten Heilkunde. Herausgegeben von Dr. J. F. C. HECKER, Professor der Heilkunde au der Universität Berlin, &c. June, July, August, 1829. (In exchange.)

Journal des Progrès des Sciences et Institutions Médicales en Europe en Amérique, &c. Vols. XIV., XV., and XVI. (In exchange.)

Annales de la Médecine Physiologique. April, May, June, 1829. (In exchange.)

Revue Médicale. June, July, August, 1829. (In exchange.)

Bulletin des Sciences Médicales. November, December, 1828—January, February, March, April, May, 1829. (In exchange.)

Journal Universel. May, June, July, 1829. (In exchange.)

Journal Général de Médecine. May, June, July, August, 1829. (In exchange.)

Nouvelle Bibliothèque Médicale. March, April, May, July, 1829. (In exchange.)

Archives Générales de Médecine. May, June, July, August, 1829. (In exchange.)

Journal de Chimie Médicale de Pharmacie et de Toxicologie Rédigé. Par les Membres de la Société de Chimie Médicale. January, February, March, April, May, June, August, September, 1829. (In exchange.)

La Clinique des Hopitaux et de la Ville. From January 1st to July 16th, inclusive. (In exchange.)

La Clinique, Annales de Médicine Universelle, par une Société de Médecins Français et Etrangers. Nos. I. to X. inclusive.

The Edinburgh Medical and Surgical Journal. July, 1829. (In exchange.)

The Medico-Chirurgical Review, for July. (In exchange.)

The London Medical and Surgical Journal, for July and August, 1829. (In exchange.)

The London Medical and Physical Journal, for July, 1829. (In exchange.)

The London Medical Gazette, for June, July, and August, 1829. (In exchange.)

The Boston Medical and Surgical Journal, Vol. II., Nos. 22 to 36 inclusive. (In exchange.)

The Transylvania Journal of Medicine, and the Associate Sciences, for August, 1829. (In exchange.)

The North American Medical and Surgical Journal, for October, 1829. (In exchange.)

The New York Medical and Physical Journal, for July, 1829. (In exchange.)

The Maryland Medical Recorder, conducted by H. G. JAMESON, M. D. Professor of Surgery in Washington Medical College, Baltimore. Vol. I., No. I., 1829. (In exchange.)

For the gratification of our contributors we continue the references to the works, in which they will find notices of their communications; these references are, of course, restricted to the Journals received during the preceding three months.

Professor PHYSICK will find his Case of Obstinate Cough occasioned by Elongation of the Uvula, noticed in the Annales de la Médecine Physiologique, for April, 1829.

Professor MOTT's Operation for Excision of an Osteo-Sarcomatous Clavicle is noticed in the Journal des Progrès, Vol. XVI.; and his Case of Calcareous Degeneration of the Scrotum in the Bulletin des Sciences Médicales, for May, 1829.

Professor DEWEES's paper on Ergot is noticed in the Annales de la Médecine Physiologique, for April, 1829; and his Case of Puerperal Fever is copied into the London Medical and Surgical Journal, for July, 1829.

Professor BIGELOW's Method of Affording Respiration to Children in Reversed Presentations, is noticed in the North American Medical and Surgical Journal, for October, 1829.

Professor HORNER's Observations on some points of Pathology, are notice in the Annales de la Médecine Physiologique, for April, 1829.

Professor Coxe's paper on Wounds of the Heart is noticed in the Boston Medical and Surgical Journal, for September, 1829.

Professor Godman's Communication on the Use of Tobacco in Croup, is copied in the Journal des Progrès, Vol. XIV.

Professor Henderson's Case of Cough from Elongated Uvula, is quoted in the London Medical Gazette, for June, 1829.

Professor Sewall's paper on the Use of Turpentine in Hernia, is noticed in the Boston Medical and Surgical Journal, for August, 1829.

Professor Hare's Analysis of Swaim's Panacea is noticed in the Boston Medical and Surgical Journal, for August, 1829; and the North American Medical and Surgical Journal, for October, 1829; and his Mode of Detecting Minute Quantities of Laudanum, in the Bulletin des Sciences Médicales, for January, 1829.

Professor Jackson's Case of Mercurial Irritation, is copied into the London Medical and Physical Journal, for July, 1829; his Case of Tetanus is given in the Archives Générales, for June, 1829; and the Journal des Progrès, Vol. XV. His first Clinical Report is noticed in the Annales de la Médecine Physiologique, for April, and inserted entire in the No. for May, 1829. His Case of Malignant Intermittent is copied in the Medico-Chirurgical Review, for July last; and his Case of Amnesia is copied into the Medico-Chirurgical Review, for July; the London Medical Gazette, for June; the Archives Générales, for June; the Journal des Progrès, Vol. XV.; La Lancette Française; and the Journal Universel, for July, 1829.

Dr. Daniell's Method of Treating Fracture of the Thigh Bone is noticed in the Boston Medical and Surgical Journal, for August, 1829.

Dr. Heustis's Case of Hernia Cerebri is noticed in the Archives Générales, for June; the Journal des Progrès, Vol. XI.; and the London Medical and Physical Journal, for July, 1829.

Dr. Wright's Case of Arthrosia Atonica is analyzed in the Medico-Chirurgical Review, for July, 1829; and his paper on the Use of Pressure in Ununited Fractures, is noticed in the Journal des Progrès, Vol. XV.; and the Revue Médicale, for August, 1829.

Dr. Jackson's paper on the Use of Ergot in Placental Cases, is noticed in the London Medical Gazette, for June, 1829; and his Remarks on Entropion are noticed in the North American Medical and Surgical Journal, for October, 1829.

Dr. Mitchell's paper on Dysentery is noticed in the Annales de la Médecine Physiologique, for April, 1829.

Dr. Callaghan's Account of an Epidemic Small-pox is noticed in the Boston Medical and Surgical Journal, for September, 1829.

Dr. Griffith's Case of Salivation produced by Tartar Emetic, is copied in the Bulletin des Sciences Medicales, for March, 1829.

Dr. Drake's Experiments on Respiration of Cool Air in Pulmonary Diseases, are noticed in La Clinique, for June 23, 1829.

Dr. Dakin's Account of a Cutaneous Disease is noticed in the Western Journal of the Medical and Physical Sciences, for July, 1829; and the Boston Medical and Surgical Journal, for May, 1829.

Dr. Howe's Case of Tracheotomy is copied in the London Medical and Physical Journal, for July, 1829.

Dr. Pierce's Case of Perforation of the Stomach, is noticed in the Boston Medical and Surgical Journal, for August, 1829.

Dr. Pennock's Experiments on the Effects of Cupping Glasses in Poisoned Wounds, are noticed in the Annales de la Médecine Physiologique, for April; and the Bulletin des Sciences Médicales, for January, 1829.

Dr. Rodrigue's Experiments on Ligatures in Poisoned Wounds, are noticed in the Annales de la Médecine Physiologique, for April, 1829; and the Journal des Progrès, Vol. XIV.

Dr. Heiskell's Case of Extra-Uterine Fœtation, is copied into the Nouvelle Bibliothèque Médicale, for May; La Clinique, for May 16th; and the Bulletin des Sciences Medicales, for January, 1829.

Dr. Levert's Experiments on Metallic Ligatures, are noticed in the London Medical and Surgical Journal, for August; the Western Journal of the Medical and Physical Sciences, for July; the Archives Générales, for August; and La Clinique, for August 26, 1829.

Authors of new medical books, desirous of having them reviewed or noticed in this Journal at the earliest opportunity, are invited to transmit to the *Editors* a copy as soon after publication as convenient, when they will receive prompt attention. Under ordinary circumstances, very considerable delay is caused by the circuitous routes through which they are received.

Papers intended for publication, should be sent, *free of expense*, as early after the appearance of the Journal as possible, in order to be in time for the ensuing number. Such communications should be addressed to "Carey, Lea & Carey, Philadelphia, for the Editors of the American Journal of the Medical Sciences." All letters on the *business* of the Journal to be addressed exclusively to the publishers.

☞ Our Subscribers who receive their Journals by Mail, will observe that the postage is one-third less than formerly, in consequence of the enlarged size of the paper upon which the Journal is at present printed.

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XX. A Treatise on Pathological Anatomy. By William E. Horner, M. D. Adjunct Professor of Anatomy in the University of Pennsylvania, Surgeon at the Infirmary of the Philadelphia Alms-house, Member of the American Philosophical Society, &c. Philadelphia, 1829, 8vo. pp. 456. Pls. III. of which II. are exquisitely coloured - - - - - - 148

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XXXIV. Handbuch der Anatomie des menschlichen Körpers, zum Gebrauch der Vorlesungen, ausgearbeitet von Johann Christian Rosenmuller, M. et C. D. Professor der Anatomie in Leipzig, &c. &c. Vierte vermehrte Auflage Herausgegeben von D. Ernst Heinrich Weber, Prof. &c. Leipzig, 1828. 8vo. pp. 564 - - - - - - - - 188

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DR. RANDOLPH'S CASE

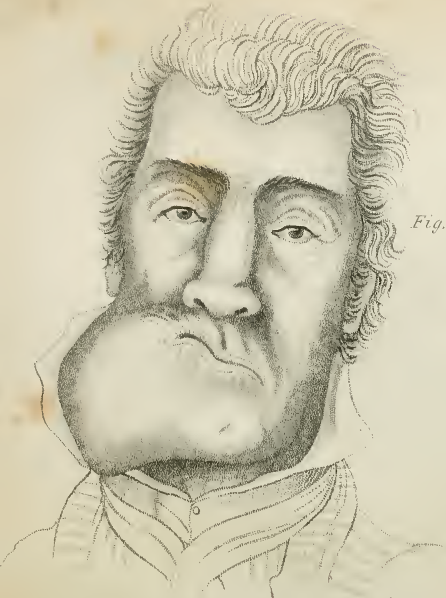
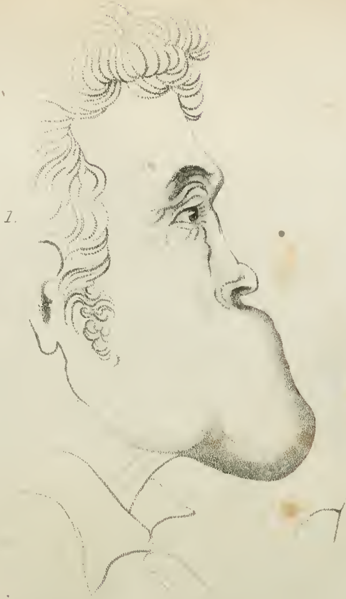


Fig.1.



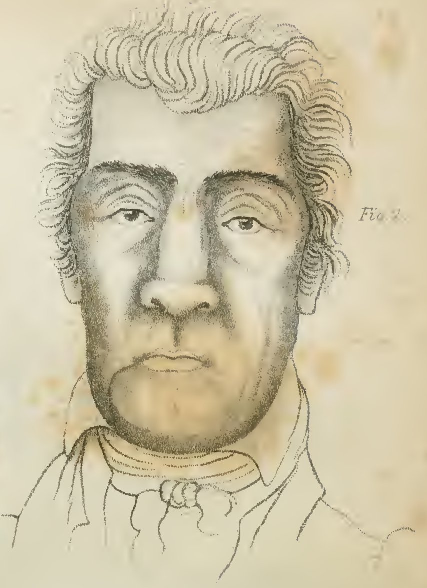


Fig.2.

Drawn and Eng'd by J.Drayton –

THE

AMERICAN JOURNAL

OF THE

MEDICAL SCIENCES.

Art. I. *Case of Amputation of the Lower Jaw affected with Osteo-Sarcoma.* By J. Randolph, M. D. [With a plate.]

May 20th, 1829, I performed the operation of excision of a portion of the lower jaw, affected with osteo-sarcoma, on Mr. Parke Shee, of Chester, Pennsylvania, aged fifty-three years. Mr. Shee applied to Dr. Physick, for the first time, in the beginning of this month, for advice on account of a large tumour which occupied his lower jaw bone, and occasioned so much deformity as to excite the curiosity, and arrest the attention of almost every person who saw him. He was unable to assign any very satisfactory cause for the existence of this tumour; he recollects to have had several teeth roughly extracted, and thinks, perhaps justly, that this was the origin to which it may be attributed.

The tumour had existed for six or eight years; he first perceived a small lump of the size of a hazle-nut on the external face of the bone, just below the right cuspidatus tooth: it was not attended with much pain, and increased for a long time but slowly. He had been frequently advised to apply for proper relief, but in consequence of being actively engaged in business, he neglected to do so until he became alarmed by the rapid increase in its size, which had taken place in the last few months. The disease at this time appeared to extend from the first bicuspid tooth on the left side to within a short distance of the angle of the bone on the right. No trace of the teeth or alveolar processes could be found on the right side beyond the second incisor tooth; the bone here was expanded, and presented a large, smooth, convex surface, covered by the lining membrane of the mouth. It completely filled up the cavity of the mouth on the right side, and occupied the space under the tongue of the same side, nearly as low down as its attachment to the os hyoides. The tongue was consequently thrown out of its natural situation, and rested upon the surface of the tumour, this occasioned considerable difficulty in deglutition. Externally, the tumour was pretty regularly convex, and seemed to be principally composed of osseous structure, an evident fluctuation, however, could be felt at the extremity of the chin, and lines could also be perceived denoting several distinct cells or cavities to exist in it, which were afterwards found to contain a thick, inodorous, serous fluid. The size and weight of the tumour was so great as not only to occasion considerable difficulty in mastication and deglutition, but also caused great inconvenience by its continual tendency to draw the lawer jaw downwards and keep the mouth open, from which there was a constant flow of saliva. The patient had, however, entire controul of the motions of his jaw, and could move it freely in all directions.

Mr. Shee having been made fully aware of the particular circumstances of his case, and of the necessity which existed in our opinion for the removal of the diseased mass, promptly expressed his willingness to submit to any operation which we deemed necessary. I accordingly proceeded to its performance, on Wednesday, the 20th of May, in the presence of Drs. Physick, Horner, Tucker, Hays, Gillingham, &c. The patient being seated on a high chair, I made an oblique incision through the lip, commencing at the right angle of the mouth, and carrying it down over the tumour, just in advance of the masseter muscle, I terminated it about half an inch below the base of the jaw. The right coronary artery, which was divided by this incision, was then secured by a ligature. I was now able to dissect off the skin and integuments from the whole external surface of the tumour, as far back as the first large grinder on the left side, at which place having exposed the bone, I divided it with great ease by means of a common key-hole saw, properly sharpened. I now dissected off the integuments from the right side of the bone, as far back as the last molar tooth, at which place I also sawed through the bone, but I experienced some difficulty in doing this, in consequence of the tumour extending so far on this side as to interfere with the motions of the saw. Previously to sawing the bone on this side, the fascial artery, which had been necessarily divided, was taken up and tied. I now completed the removal of the tumour, by dividing the mucous membrane of the mouth, and separating the bone from the mylo-hyoid and its other muscular connexions. This was soon done, as the adhesions between the tumour and the surrounding parts were so slight, that when the diseased part of the bone was entirely detached from the sound part, I was able to draw out the morbid mass and finish the dissection with but little difficulty.

Throughout the whole dissection I took particular care to cut close upon the surface of the tumour, in order to avoid wounding important parts lying adjacent to it. After removing the tumour, not being satisfied with the appearance of the extremity of the bone on the right side, it was deemed proper to remove another portion of it; I accordingly cut off half an inch of it with great ease, by means of a metacarpal saw, there being no lump now to retard the motions of the saw. The time occupied by the operation was twenty minutes; the patient did not loose more than six or eight ounces of blood. After carefully securing such of the small vessels as bled, I brought the integuments together on the right side, and retained the edges in contact by means of the interrupted suture. A compress was then placed under the chin, and the relaxed integuments were supported by a roller passed round the chin and head. The patient was a good-deal prostrated by the operation; in the evening his pulse rose to 85, he however fell into a fine sleep, perspiration came on, and he passed a good night. In the morning I found him with a pulse of 70, since which time he has not had any fever. For the first four or five days he could neither swallow nor speak, excepting with great difficulty; he can now articulate nearly as distinctly as he could do before the operation, and swallows with much ease and satisfaction his nourishment, consisting of whey, milk, eggs, oysters, soup, &c. On the seventh day from the time of the operation, the patient was able to get up and walk about his room, and in four weeks he returned home quite well.

Several saws have been recommended by different surgeons for the purpose of dividing the lower jaw; at the suggestion of Dr. Physick, I used a common key-hole saw; it answered perfectly. I had a saw made similar to the one used by Mr. Syme, of Edinburgh, having a straight blade six inches and a half long, and half an inch broad; but after a trial with each, I prefer the former. As regards the propriety of tying the carotid artery previous to commencing the extirpation, I would observe, that in this case I consider such a procedure would have been highly improper and altogether unnecessary.

The Plate accompanying this paper represents accurately the appearance of Mr. Shee before and after the operation.

With respect to the nature of this tumour, I would observe, that its formation appeared to me to be perfectly independent of any constitutional diathesis. Mr. Shee is the father of thirteen healthy children, he himself in other respects seemed to enjoy excellent health, and did not exhibit the slightest marks of a scrofulous habit. The disease appeared to me to be strictly local, inasmuch as the external integuments and internal parts, with which it was in contact, were quite sound, and not at all implicated with it; his countenance was natural and good. The disease evidently originated in the cancellated structure of the bone, and while at the same time the tumour was enlarging considerably externally, in consequence of new bony deposition, absorption was also taking place within, and this to such an extent that in several places the bone which covered the tumour became as thin as the shell of an egg, and in other parts it was entirely removed, and its place supplied by a dense fibrous structure. I cannot agree with the French and German surgeons in supposing that all osteo-sarcomatous tumours necessarily possess a malignant character, and are identical with cancer and fungus hæmatodes, diseases so connected with a morbid state of the constitution, and so liable to contaminate the adjacent parts, that their removal seldom enables us to calculate upon a cure. Had this tumour, which originated in my opinion from common inflammation, been excited in a constitution impaired and predisposed to morbid actions, I can readily imagine that it should have possessed a highly malignant character, with which the constitution should have become deeply involved, and that its removal would not insure the patient from a return of the disease.

But, inasmuch as the inflammation attacked a healthy constitution, and the patient was not subjected to any adequate treatment for its removal, it was suffered to progress until it occasioned the alteration in the structure of the bone which I have described, and which I do not believe possessed a malignant character, but was so entirely local as to warrant me in hoping that my operation would be permanently successful.

Pl. I. fig. 1. represents the appearance of the patient before the operation; fig. 2. after the operation.

Philadelphia, July 27, 1829.

ART. II. *Fœtal Bones coloured with Madder.* By R. D. MUSSEY, M. D. Professor of Anatomy and Surgery in Dartmouth College, Hanover, N. H. [With a plate.]

THE nature of the communication established between the blood-vessels of the mother and those of the fœtus, is, perhaps, still a problem. From the almost uniform failure in attempts to inject the one

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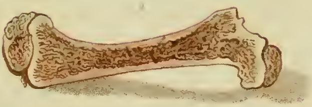

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set of vessels from the other, it has been inferred that no *direct* communication exists between them; and some physiologists have been emboldened to doubt even the existence of any communication whatever.* In a French periodical,† however, it is stated, that Le Cat, in 1752, and again in 1754, succeeded, by injection, in fully demonstrating to the Acadamy and to the commissaries of that institution, what was considered to be a direct communication between the vessels of the fœtus and those of the mother, in cases where the placenta remained attached to the uterus after death.

The following experiments, which, in so far as I am informed, are new, will serve to show, that, with one of the tribes of lower animals, whatever be the nature of the communication between the vessels of the uterus and those of the ovum, it does not forbid the passage of a foreign substance from the one to the other.

I caused a sow, during the last eight weeks of gestation, to be fed with madder, by mixing daily about three or four ounces of it with the food of the animal. On the day the farrow was produced, several of the pigs were killed, and their bones inspected. Every bone was strongly tinged with red. The teeth were stained of a delicate pink colour. The engraving exhibits tolerably well the effect of the madder upon the teeth, and upon one of the large bones.

Explanation.—Pl. II. fig. 1. A cuspid tooth. Fig. 2. Concave part of a partially formed grinder. Fig. 3. Convex part or grinding surface of the same specimen; the enamelled points white. Fig. 4. Interior of the thigh bone, cut longitudinally.

In another experiment, more recently made, a sow within a month as nearly as could be ascertained of bringing forth her farrow, was made to eat four ounces of madder daily, for twenty days, and was then bled to death. The urine of the animal was very high coloured, but was much deepened by the addition of a small quantity of the solution of potash. The serum of the blood too, after the red particles were allowed as much as possible to subside, was of a red colour, which was suddenly heightened by the addition of the alkali. Half a dozen of nearly full grown pigs were found in the uterus.

The liquor amnii was repeatedly tested. It yielded a distinct tinge of red when the potash was applied to it. The proportion of madder, however, in the liquor amnii must have been small, for when a small volume of it was tested with the alkali, the appearance of a red tinge was not satisfactory; but when tried in the following manner, the change was very manifest. About two drachms of the colourless, or nearly colourless liquor amnii was put into an ounce phial, and as much into another phial of the same size. These were placed side by side, and the solution of potash dropped into one of them; the red tinge was immediately acknowledged by a number of gentlemen, before whom the liquor amnii was thus repeatedly tested.

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* I have heard a lecturer of eminence declare his strong doubts of the existence of any sort of communication between the fœtal and maternal vessels.

† Recueil Périodique d'Observations de Médecine, Chirurgie, Pharmacie, &c. 1754. Tom. I. p. 253.

The colourless liquor in the stomachs, and the pale urine in the bladders of the fœtal pigs, were found in too small quantity to admit of a satisfactory application of the test. In this last experiment with the sow, the teeth and other bones of the fœtal pigs exhibited the red colour quite as strongly as did those of the first experiment, in which the mother was fed *eight* weeks upon madder, instead of twenty days. The bones of the *sow*, in the last experiment, were dyed of a fine red approaching scarlet. Thus it appears that the colouring matter of madder is capable of existing not only in the serum of the blood, in the urine, but also in the liquor amnii, and of circulating harmlessly through the delicate organs of the fœtus, in different stages of their development and growth.

Hanover, New Hampshire, May 19th, 1829.

Art. III. *Parodynia Perversa, complicated with Hydrops Ovarii.* By Jesse W. Mighels, M. D. of Minot, Cumberland County, Maine.

In February, 1827, Mrs. Campbell, æt. about thirty, of sound constitution, above the middling stature, sanguineous temperament, strong, athletic, and of a cheerful temper, consulted me on account of a tumour in her side. On examination, I found in the left hypogastric region, an indolent, insensible, globular, moveable tumour, apparently about as large as an ostrich egg, occasioning no inconvenience but from its weight.

I had attended her twice in parturition. With her first child, which was now about three years old, she was in labour twenty-four hours, and although she had the advantages of a natural presentation and well-developed pelvis, she was extremely sick. With her second, at this time about a year old, the presentation was natural, and labour comparatively easy. She stated that she discovered the tumour a few weeks subsequent to the birth of her second child, that it was then about as large as a goose egg, and that it had gradually and almost imperceptibly attained its present dimensions. She also stated that she had had her menstrual discharges regularly for a number of months, although she still nursed her child.

I did not hesitate to pronounce it an enlarged ovarium, and, as her health in other respects was perfect, advised her to forego the use of all active medicines, to accustom herself to moderate exercise, and diet abstemiously.

In about six or seven weeks I was requested to visit her again. The increase of the tumour had been truly astonishing. It now extended to the epigastrium, filling almost the whole peritoneal sac. She was nearly as large as formerly at her full period of utero-gestation, complained of great pressure, sour eructations, loss of appetite, and costiveness; had menstruated a few weeks previously. I requested the attendance of Dr. Tewkesbury, who concurred with me in opinion that it was ovarian dropsy. We directed her to keep her bowels pervious with rhubarb and carbonate of magnesia, to wear a suspensory bandage, and anoint the abdomen with a liniment composed of spt. terebinth. one part; olive oil and spt. ammon. āā. two parts.

I saw her again in about a week, when the above symptoms had generally disappeared. No apparent change in the tumour. Ordered blue pill, ten grains, every other night at bed time; a tea-spoonful of spirit of ammonia in infusion of chamomile twice a day; to keep her bowels free with elixir proprietatis or rhubarb; light nourishing diet and moderate exercise. In June she consulted me on account of amenorrhœa. She had increased considerably; informed me she had consulted an empiric, who had given her drastic cathartics, but that she was convinced it had done her no good. She had not menstruated since I last saw her. She was evidently in a state of pregnancy. I directed her to use such palliatives as her case might from time to time demand.

She was taken in labour, November 29, 1827. I saw her at seven o'clock, P. M. She had pretty strong expulsory throes. On examination per vaginam, the os uteri was not to be found. In sitting, standing, or lying upon her side, the uterus was evidently in front of the tumour, and in sitting she literally held her child in her lap. Her size was enormous, and in order to avoid exaggeration, I measured her with an accurate scale, and found, that from the sacrum to the utmost extent in front, she measured two feet and three inches; in circumference, five feet and four inches.

Lying upon her back, the uterus would fall alongside of the tumour, which gave her the appearance of having two gravid uteri, resting upon the rings of the ilium, one upon the right and the other upon the left. The depression or fossa lying betwixt them commenced a little to the right of the symphisis pubis and run upwards in a line, about half way betwixt the linea alba and linea semilunaris, and terminated at the scrobiculus cordis.

Apprehensive that it might be necessary to lessen the tumour by paracentesis, and that the case might be attended with difficulty and danger, I requested advice and assistance, which I was denied. Till twelve o'clock her throes were very severe, from which time till 2, A. M. there was a slight recess; os externum rigid; os uteri out of reach; slight pain in the head. Bled her twenty ounces, and gave one hundred drops of laudanum, which rather increased the force and frequency of the pains. At three o'clock the membranes gave way spontaneously, and gave exit to a large quantity of liquor amnii. I then made an effort to introduce my hand, but failed, in consequence of the great rigidity of the parts. From this time till seven o'clock the pains were tremendous, but produced no apparent change. From seven till ten o'clock she had but little pain; slept some. At eleven o'clock the pains were truly terrible, and on examination I found that the os externum began to yield. I directed her to be placed upon her back, the nates resting upon the edge of the bed, and her trunk considerably elevated.

In this position I readily introduced my hand, found the os uteri above the brim of the pelvis, very far to the right of the centre and considerably dilated! The tumour occupied at least two-thirds of the bony circle. I could not recognise a space of more than an inch and a half betwixt the tumour and ilio-pubic juncture. I was about to withdraw my hand, with the determination to evacuate the contents of the sac by an operation, when a violent pain came on, which evidently caused the tumour to recede, and taking advantage of the recess of pain passed my hand by it, and ascertained that the breech presented. I found but little difficulty in bringing down the feet, in doing which the sac burst, and its contents issued into the cavity of the abdomen, the uterus took its natural situation in the centre, and the labour was finished in a few minutes, child still-born.

During the four or five subsequent days, she discharged enormous quantities of high-coloured urine; in one night five quarts! In three weeks she was up, doing her work, in perfect health, and no larger in circumference than before she had the tumour.

It began to exhibit itself again, in January, 1828, increased gradually till June, when it burst spontaneously, and disappeared again with great celerity through the kidneys. It very soon reappeared, progressed with great rapidity, burst in August, and passed off as before. She remained feeble for a number of weeks, exercised with considerable pain about the abdomen, and some hysterical symptoms, but recovered perfectly.

January 12th, 1829. I was called in the morning, and learnt that she had been indisposed for five days, and that she had been exercised with strong expulsory throes during all the preceding night. Externally, she appeared much as in 1827, but broader laterally. In sitting or standing, the abdomen appeared smooth and regular, but lying upon her back there was a much more distinct fossa betwixt the uterus and tumour than before. In circumference she measured five feet. On examination per vaginam, the os uteri was not to be found. The pains continued very severe till twelve o'clock, from which time till 1, P. M. there was a slight recess. In passing my hand partially through the os externum, I could plainly recognise the bottom of the tumour, which appeared to fill the whole of the upper part of the bony cavity.

In view of all the circumstances of her case, I could not conceive it possible for the child to pass without lessening the tumour by giving exit to its contents, which opinion I communicated to her friends, and desired counsel, which they objected to, believing that I might succeed as before, and desired me to do whatever I should deem necessary for her relief. As, however, the operation of paracentesis was unusual, perhaps unprecedented in her situation, I did not feel at liberty to do it unadvised.

At three o'clock her throes were very powerful, and finding the external parts well dilated, introduced my hand and found the os uteri jammed in betwixt the distended sac and ilio-pubic juncture, and considerably dilated in the form of a crescent. The tumour was stationary, and although I could make considerable pressure upon it, I could not obtain a space of more than an inch for the passage of the child. During this examination the membranes gave way, and allowed exit to the liquor amnii, accompanied with the funis umbilicalis, which pulsated feebly. . I again represented her case to her friends, and requested them to procure assistance, but Dr. Tewkesbury did not arrive till the next day at noon. By venesection and opium she was kept pretty comfortable during the night. On examination at eleven o'clock of the 13th, I found the left arm protruding through the os uteri. Dr. Tewkesbury arrived at twelve o'clock, and advised an attempt at turning, but on further investigation he concurred with me, that lessening the tumour by paracentesis was the only alternative. We accordingly perforated it with a pretty large trocar, in the linea semilunaris about five inches above the crista ilia, and evacuated eighteen pints of bloody water resembling dirty claret, perfectly limpid and inodorous. This afforded great relief, the uterus resumed its natural situation in the centre of the abdomen, and there can be no doubt, had the presentation been favourable, the child would have been expelled in a short time.

But, although we had removed one difficulty, we still had before us all the perplexing and discouraging circumstances of a protracted case of preternatural labour of the worst kind. Although naturally possessed of as much firmness and fortitude as a lioness, our patient had become irascible and peevish; the parts, although well dilated, were tender and irritable, and the uterus had contracted with unyielding firmness about the child; pulsation had ceased in the funis; the head of the child was unquestionably situated in the left side, and the feet at the farthest possible distance from the os uteri; there was no pain. We attempted turning, and, availing ourselves of every possible advantage, persevered in the usual way for two hours, to no effect. So far as I could introduce my hand, the uterus presented the appearance of being encircled with strong inelastic bands, three-fourths of an inch in breadth, drawn around it with incredible force. The cervix was preternaturally elongated, but so well dilated as to admit the hand readily.

Failing to afford relief in this way, we concurred in the expediency of removing the child by embryulcia. We accordingly removed the arm with the scapula and clavicle, penetrated the chest with a perforator, and so far succeeded as to introduce my hand into it and grasped the heart and lungs, when she became impatient, and bounded out of our reach, absolutely refusing any further assistance. One object was to remove the thoracic and abdominal viscera, in order to make room to introduce the hand to the feet, or to enable us to fix a blunt hook upon the pelvis, but we were defeated: we could not prevail on her to suffer another trial. We bled her twenty ounces and gave her a large anodyne, but fearing more trouble and perplexity, we sent for Dr. Carr, who arrived at eight o'clock. She again submitted to the operation, but soon became impatient, and we were obliged to withdraw. We gave her a full dose of laudanum, which procured a pretty comfortable night's rest.

In the morning of the 14th she appeared rather more pliable. The external parts were very little swollen. On introducing my hand, I found that the child had made a partial evolution and presented the right shoulder. With the blunt hook we brought down the arm, which had become so tender by putrefaction that it readily came away with the scapula. She soon became impatient, and sprang out of our reach, requesting us to leave her. At ten o'clock her friends prevailed on her to submit again, but she became discouraged sooner than before, and requested us either to give her the benefit of the Cæsarian operation, or leave her to her fate.

She was perfectly sane, pulse a little accelerated, skin rather sallow, tongue furred, but on the whole no more exhausted than the generality of women at the close of an ordinary labour. She conversed freely, and was evidently perfectly aware of her danger, but she had superstitiously imbibed the impression that she should die undelivered, and expressed the belief that we were doing violence to an immutable decree to make use of any further means for her relief. We left her at noon, on Wednesday the 14th.

I visited her again on the 16th, and received the following account: that she was exercised with incessant throes, till Thursday evening, (although during the time she took half an ounce of laudanum,) when it seems that a complete *evolution** had taken place, and the child was expelled "head foremost." An old midwife present informed me that as soon as the child was expelled, she introduced her hand and took the placenta. On examination, I found the child in a very putrid state, the head elongated and almost destitute of brain, so that the two parietal bones were almost in contact.

The patient was very feeble; face scarlet; pulse 120, quick, hard, and wiry; tongue dark coloured; unquenchable thirst; head painful and giddy; abdomen considerably distended and extremely tender; uterus appeared unaccountably large; mind sane. Bled her eight ounces, ordered fomentations, and adopted the antiphlogistic regimen to its full extent. No essential change till the 19th; fever much increased; abdomen distended, hard, and tender; lochia suppressed; bilious diarrhœa. Ordered calomel and rhubarb, a large epispastic to the abdomen, and an anodyne at bed time.

20*th.* Has had a very restless night. Cathartic had operated; abdomen extensively blistered, much distended, and elastic; countenance cadaverous; pulse hardly perceptible; respiration rapid and sonorous; hiccups; extremities cold, and the whole body covered with a profuse clammy sweat. She remained in this state about two days, and at some times there appeared to be a complete suspension of the vital functions.

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* See Denman's Midwifery, p. 135. Vol. 2d.

22d. The lochial discharge reappeared, attended with a mild diarrhœa and evident symptoms of amendment.

25th. Strong pains supervened in the evening, resembling afterpains in ordinary cases, which terminated in the expulsion of the placenta in a state of putrefaction.

February 4th. The sac had become completely distended, causing much uneasiness. I immediately perforated it with the trocar, and evacuated five quarts of very offensive matter, resembling in colour strong chocolate. She dragged out a miserable existence till the 24th, when, from spontaneous bursting of the sac, she succumbed.

On examining the body, an hour after death, we were almost suffocated with the most offensive stench. About two quarts of matter had escaped into the right side of the abdominal cavity, which was perfectly separated from the left by the firm attachment of the great sac to the peritoneum, mesentery, and intestines. The dropsical effusion evidently commenced in the peritoneal covering of the ovarium. The ovarium itself was but a very little diseased, being only a little indurated and enlarged, and so completely imbedded in the sac as to appear to make a part of its walls. We discovered the spontaneous laceration at the upper part, where it was in contact with the liver. From all we could discover, we were of the opinion that this was the point at which it had burst formerly; being at all other parts perfectly smooth and regular, but here considerably thickened and hardened, excepting at the centre, where the rupture appeared. The sac itself contained about ten quarts of very offensive pus. The small intestines were crowded into the epigastrium, being firmly attached to the vertex of the sac. The liver, spleen, pancreas, and kidneys were sound. The uterus appeared as usual at this period of the puerperal state, but removed from its natural situation and crowded firmly into the right hypogastrium. The peritoneal covering of the bladder and sac had so firmly united as to appear like one membrane.

Reflections.—In view of this case two important practical facts present; 1st. As it regards the expediency of an operation during labour, under circumstances like those above related. I do not recollect of having ever seen a case recorded precisely like this, but should another occur, I should consider a seasonable operation of primary importance. 2d. It is believed that too much stress is laid upon the importance of artificial interference in cases of malposition.

In cases attended with hæmorrhage, or when the feet or pelvis may be *easily* commanded, or when circumstances render turning easy, it may and ought to be resorted to, but not in cases like this. Further, in *ordinary* cases of presentation of the shoulder or arm, it is believed that it is more expedient, that it is safer to trust the case to nature, than to interfere with *any* degree of violence. Spontaneous evolution *will*, in nine cases out of ten, take place. With a view to facilitate the evolution, I would merely remove the presenting part, bleed according to circumstances, and allay irritation by the occasional use of anodynes.

Minot, Cumberland County, Maine, July, 1829.

Art. IV. *Account of a Purulent Ophthalmia that prevailed at Fortress Monroe, in Virginia, in the years* 1826–27. By Dr. Robert Archer, United States' Army.

THE ophthalmia which is the subject of this paper, was introduced by a company of artillery from Fort Independence, Boston Harbour, which arrived on the 9th of April, 1826, at Fortress Monroe.

Dr. Mann, the attending surgeon at Fort Independence, has furnished me with some important facts in relation to its history. He says it made its appearance at that post in the autumn of 1824; that between the first of September and last of December of that year, eight cases were reported, and twenty-seven of the most aggravated form in the year 1825, besides many milder ones. More than two-thirds of the company therefore had been attacked before it left Fort Independence.

Four of the company only were affected at the time of its arrival at Fortress Monroe. Of these, two had ulcers and opacity of the cornea, and the other two a milder form of the disease. Whether a removal from the infected atmosphere of Fort Independence had arrested the disease, or whether the sea voyage and change of climate had destroyed the susceptibility, in those who continued healthy, to receive it, I know not, but after leaving Boston but one new case occurred.

This company continued to occupy the quarters that had been assigned to it on its arrival at Fortress Monroe, until the 6th of December following, when they were vacated, and another company put in, whose rank entitled it to that position in the order of the battalion.

It may be well to mention, that the only fixtures in the soldiers' barracks are the bunks; when a company moves, it takes with it every moveable article, and it is an uniform practice for the rooms to be thoroughly cleansed and white-washed, before or immediately after they are reoccupied. I am thus particular in noticing this fact, because if the bedding, or any thing else that had been used by this company had been transferred to its successor, we might find less difficulty in accounting for the reappearance of the disease.

In November, 1826, I was relieved from duty in the regiment, and tranferred to another department at the post; the minute details of the cases therefore, which occurred between that period and the subsequent November, when I rejoined the regiment, were communicated to me by my friend Dr. Everett, the senior surgeon of the post.

About the 4th of March, 1827, the first case in the new company exhibited itself; this, it will be observed, was three months after removing into the quarters. The symptoms being very similar to those of ordinary ophthalmia, no alarm was excited, as no suspicion could exist that the contagion had lain dormant for such a length of time after the quarters had been vacated by the infected company; nor was there any reason to suppose that the disease was contagious, for as the company at Fort Independence were all exposed to the same exciting cause, they were all equally liable to contract it, and the disease might have been considered as epidemic, or rather endemic. The lapse of a few days, however, proved it to be similar in every respect to that brought from Fort Independence, and of a most malignant character. The cases began rapidly to multiply, and in spite of every precaution, such as removing the men on the first symptom of infection, and the strictest attention to police, it pursued its regular course until the 14th day of January, 1828, when the last case was reported.

Of forty-five men who composed this company, twenty-three became infected, and it is not a little remarkable that the disease should have confined itself, in the first instance, to a particular spot; for it was clearly ascertained that the first six cases originated in individuals who had slept at some period in the same bunk.

Each company of the regiment occupied one long room, and it may be urged that the disease was promulgated through the medium of the vitiated atmosphere of the room, and therefore that it was not strictly or technically contagious; but, to put this question beyond dispute, it will only be necessary to state, that at a time when there was but one ophthalmic patient in the hospital, the two men of different companies, who occupied the beds on either side of him, both took the disease, and had it in its severest forms.

The progress of this disease may properly be divided into three stages. The first symptom the patient complains of, is a sensation in the eye similar to that produced by the irritation of a grain of sand; the vessels of the conjunctiva are engorged; the inflammation of that portion covering the sclerotica diminishing as you approach the cornea, but unusually severe when it lines the inferior palpebra. This appears to be the part primarily affected, and to constitute the pathognomonic symptom of the disease, for in several cases where I could scarcely perceive a discoloration of the albuginea, the strongest marks of inflammatory action were perceptible on this portion of the conjunctiva. In this stage of the disease the patient experiences rather uneasiness than pain, for although the eye is somewhat sensible to the impression of light, it is not sufficiently so to render a screen at all necessary. Unless you are fortunate enough to arrest the disease here, the most violent symptoms now supervene; the conjunctiva becomes turgid with blood, and frequently protrudes beyond the palpebræ, resembling a lump of raw flesh. You no longer discover the beautiful net-work of vessels that characterized the first stage; the cornea appears sunk; the palpebræ so swelled as with difficulty to be separated; ectropion; entropion; the pain in the eye excruciating, with a large secretion of hot fluid, generally intermixed with purulent matter; the intensity of the heat sometimes so great as to make the patient complain of its scalding his cheek. Opacity of the cornea, ulceration, rupture of the coats, and evacuation of the humours succeed this, and constitute the third stage.

The inflammation in this disease seems to be of a specific character, for although, as I before stated, the early symptoms are very similar to those of simple ophthalmia, a minute examination will at once detect the difference, and render it a very easy matter at the first inspection to pronounce between them. The conjunctiva in every instance exhibited a rough, honey-combed appearance, similar to what would probably result from the application of a strong mineral acid. Mr. Saunders is, I believe, the first writer who has noticed this peculiar granulated appearance of the conjunctiva.

In the treatment of this disease, I regret I am not able to add much to the stock of knowledge already in possession of the faculty. Every means that might be supposed, directly or indirectly, to exercise an influence over it, were tried with most determined perseverance. Venesection, cathartics, fomentations, poultices, scarifications, astringent and emollient collyria, blisters to the temples and nucha were all resorted to, and although the symptoms in one case were partially mitigated, in another they were apparently aggravated. The plan, however, which was most successful, and that on which I would with most confidence rely, should I ever encounter the disease a second time, was the following. In the first stage the patient should be copiously bled, and purged with neutral salts, and subjected to the *strictest* antiphlogistic treatment. Moderate bleedings appeared to exert no influence over the disease; blood-letting should be repeated and carried as far as the circumstances of the patient would permit. Scarifications of the conjunctiva appeared to have no effect in reducing the inflammation, although, arguing *à priori*, I should be very loth to dispense with them, more especially when leeches could not be procured, as was the case with us. Emetics of tartarized antimony, frequently repeated, together with nauseating doses of the same, were found particularly appropriate. Collyria of lead and zinc in the first stage were injurious, those of an emollient nature totally inert, but throughout every stage a liniment composed of ol. oliv. and mur. hydr. in the proportion of one or two grains of the muriate to one ounce of oil, was used with decided advantage. The corroded surface of the conjunctiva required some lubricating substance to counteract the attrition produced by the constant motion of the ball and eyelids, and although the application produced great pain for a few seconds, it soon subsided after a copious secretion of tears, and left the patient in comparative ease.

From the vinous tincture of opium, so strongly recommended by WARE, I do not think any advantage resulted, although I gave it a very fair trial.

Calomel and the blue pill, both as alterants and sialagogues, were employed without effect. In one or two instances, blisters to the temples I thought rather aggravated the inflammation, but when applied directly over the eye, their salutary effect was most manifest; this method of applying them was adopted at an early period by my friend and associate Dr. Everett. It is a practice I can not recommend in terms too strong, for if there was any treatment universally and unequivocally successful, it was this.

To relieve the excruciating pain attendant upon the second stage, I found nothing to equal the infusion of the *Datura stramonium*, applied by means of cloths to the eye. It was continued from one to three hours, according to the violence of the pain, and never failed to relieve it. No evil resulted from its frequent application, although the pupil in every instance was so dilated as to reduce the iris to a delicate ring. This remedy promises to be of considerable importance in ophthalmias generally, attended with severe pain in the eye, and deserves farther consideration.

In ulceration and opacity of the cornea, the solution of nit. argent. in the proportion of one or two grains to the ounce, applied by means of a camel's hair pencil, was used with advantage, and when the conjunctiva becomes so engorged as to produce eversion of the eyelid, I am convinced that the best practice is to slice it off. By doing so, you take away the principal source of irritation from the cornea, touch the rough granulated surface of the conjunctiva, and I believe produce a new inflammatory action, more manageable and totally different from the former.

To what cause are we to ascribe the origin of the disease at Fort Independence? Its extension, we think, we have clearly demonstrated to depend on contagion.

It appears from the statement of Dr. Mann, that sore eyes were more frequent in Boston about this time than usual, although not characterized by any uncommon symptoms. An ophthalmic constitution of the air, as SYDENHAM would have called it, was probably then the remote or predisposing cause of the disease, and to the peculiar locality of the fort, the duties, the habits, and the dress of the soldiers, I think we may with some propriety ascribe the exciting cause.

Fort Independence is situated on a small island of ten acres, in the harbour of Boston. The parade ground included within the walls of the fort, comprises an area of about sixty yards by thirty. This, with a view to police, and to render it firm, has been covered with a stratum of coarsely pulverized gray stone of the *schistus* formation: there is nothing for the eye to rest upon, but these particles of slate, acting as so many reflectors of light and heat, the yellow-washed brick walls of the quarters, and an extensive sheet of water.

The soldier, from the nature of his duties, is necessarily much exposed to the direct influence of the solar rays. As a sentinel, he stands on his post for two hours; his fatigue duties are generally, and his drills and other exercises always, performed in the open field, so that I think we may safely say he is exposed, from necessity or choice, at least eight hours out of twelve to the effects of the sun; and when we take into consideration that the only covering to the head worn at that time by the soldiers, except on parade and guard duties, were woollen forage caps, fitting as close as the scalp, and those too without visors or screens to protect the eyes, we need look no farther for a cause adequate to produce the effect described, in individuals remotely predisposed to the disease, by the prevailing constitution of the air and their too general habits of intoxication. Dr. Mann remarks that none had the disease severely, except notorious drunkards. There were at this time about twenty women and children at Fort Independence, not one of them, or any of the officers, took the disease; which goes very far to prove that the habits of the men, their exposure to the sun, and the use of the forage cap, tended materially to the production of the disease.*

Fortress Monroe, August, 1829.

Art. V. *Remarks on Otitis.* By George F. Lehman, M. D. Lazaretto Physician of the Port of Philadelphia.

It has been observed by distinguished authority, that inflammation of the ear is generally limited in its extent, and seated so far out of our reach that bleeding is seldom employed, nor is the constitution so much affected as to render any general remedies necessary.

Several cases of unusual violence having fallen under my notice, which required corresponding measures for their relief, and entertaining an idea that the pathology and treatment of this affection are not sufficiently elucidated, the following observations are made.

The causes of otitis are generally those which create inflammation in other parts, such as exposure to cold, particularly a current of cold air, or the direct application of snow, ice, or cold water to the ear, mechanical violence, the introduction of exotic substances, as a ragged bone, a cherry-stone, or worms, insects, or the larvæ of insects, into the ear, many cases of which are on record. I once witnessed a severe inflammation of the ear occasioned by the sting of a wasp.

When inflammation is confined to the meatus auditorius externus, it is characterized by slight pains in the ear, and is relieved by the introduction of a few drops of thebaic tincture, tincture of digitalis, oleum olivæ, or oleum amygdalæ into the ear, and warmth applied by flannel.

In this state of the disease, the application of a few drops of the tincture of digitalis usually affords as much relief as any other remedial agent. Stimulant errhines may be also used with advantage.

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* We beg leave to refer our readers to a paper on Purulent Ophthalmia, in the thirteenth volume of the Philadelphia Journal of the Medical and Physical Sciences, in which we have attempted to point out the true character of that disease.—Ed.

The causes of this infection are not to be overlooked in its management. If it depends on the presence of foreign bodies, they must be extracted; if on insects or the larvæ of insects, the proper remedy to suffocate them will be a few drops of olive or almond oil dropped into the meatus externus.

In common cases, indicated by slight pains only, and brought on by the direct application of cold, the disease depends very often simply on the constriction of the excretory ducts of the glandulæ ceruminosæ; to relieve which the appropriate treatment is warm fomentations, to restore the ducts to their natural action. Sometimes the introduction of tepid water or steam will be sufficient.

If the inflammation extends to the membrani tympani, the pain is sharp, lancinating, and throbbing, reaching to the temporal bone. The brain is often affected, creating delirium, the tongue is furred, and the action of the heart much increased. The disease advancing, suppuration follows, and a discharge takes place.

Sometimes the membranes of the brain are affected, causing phrenitis, and the temporal bones become carious, and death is occasionally the consequence.

Dr. Powell, in the Medical Transactions, Vol. V. page 212, relates the case of a lad of sixteen years of age, who had suffered two attacks of otitis preceding the fatal one, in which the pain was intense, yet the pulse never exceeded 72, and the operations of the mind were unimpaired.

When we consider that the membrani tympani is stretched very tensely over the tympanum, and is chiefly formed of the periosteum, it can excite no surprise that the pain is so very excruciating in inflammations of this membrane. Besides, it has an abundance of small vessels, supplied by the stylo-mastoid and temporal arteries.

So extreme is the sensibility of this membrane, and the sufferings of the patient so acute, that his reason is often affected, but the suppurative process advances with rapid strides to relieve his agony, and the parts afterwards, in a great majority of instances, heal kindly and in a short period.

No stronger proof exists of the vis medicatrix naturæ than the general tendency of all inflammations to the surface. It is an instinctive effort of nature to save her vital parts from the presence of matter, which, from its irritating qualities, would bring about very serious consequences. This observation, indeed, applies to all the great cavities of the body; innumerable instances in support of which might be derived from morbid anatomy, which must be familiar to all practical men. If an inflammation attack the peritoneum covering an intestine, and adhesions are hereby produced between the two, the inflammatory action works upwards through the thick walls of the abdominal muscles, while the proper coats of the intestines in most instances remain sound. We even find that if abscess form in a frontal sinus from an obstruction in its duct, the matter will rather work its way externally through the frontal bone, than descend into the nose. In like manner, if an inflammation attack the cellular membrane on the outside of the rectum near the anus, although the latter be in contact with the inflamed part, the inflammation will extend to the skin of the buttock, while the gut itself is often but little affected.*

If the inner surface of the tympanum or labyrinth becomes inflamed, the disease assumes a very important character. The pain is continued and most excruciating; coma or delirium is common; the pulse is much excited, and in every instance the constitution is affected; suppuration takes place; the pus finds a lodgment in the labyrinth; the bones become carious, and total deafness follows. The whole structure of the ear is destroyed, even the bones are sometimes discharged through the meatus auditorius, with very fetid matter, and fistulous ulcers supervene upon this, which are very troublesome.

In a few rare instances the inflammation has extended to the brain, affecting the membranes and surface of the organ, and coating them with coagulable lymph, pus, or both. As the disease approaches this condition, topical applications are of no avail. We must now have recourse to active and copious depletion, and the first and most beneficial is venesection, which may be carried to a great extent.

Active purgatives must always be resorted to, it matters not whether calomel, castor oil, or the saline purgatives are used, so that the doses are liberal enough to act promptly and freely. After this is done, cupping, leeching, and blistering behind the ear, are very salutary. The hot pediluvium is occasionally serviceable.

So soon as the arterial excitement is diminished, the pain is usually relieved, at all events to a certain degree, then the introduction of a few drops of the tincture of digitalis into the ear will be proper.

When, however, the disease does not yield to this treatment, and the pain continues severe, we must depend on narcotic cataplasms, and fomentations to moderate it, until suppuration takes place, and pus is discharged from the external meatus, which usually affords a cessation from pain. Tepid water, or milk and water, are then to be injected repeatedly into the ear to wash it out; or you may syringe the ear now and then with gum Arabic water, or any other mucilaginous infusion, and mild astringent decoctions, and in a short time, the parts will be restored, to their usual healthy condition. The regimen during the continuance of inflammation ought to be cooling and light.

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* Good's Study of Medicine, Vol. II.

There is a species of ear-ache denominated nervous. It is generally symptomatic, and is almost always the effect of gastric irritation, or some irregularity in the alimentary canal. An active cathartic generally removes it, with the insertion of a few drops of laudanum, ether, or the tincture of digitalis into the ear.

I have attended a lady, the mother of seven children, who is first warned of her conception by a severe ear-ache. It happens occasionally until the sixth month of her pregnancy, when it entirely disappears. Twice I applied mustard cataplasms behind her ear, but she has been usually relieved, by the introduction into the external meatus of cotton impregnated with the tincture of digitalis, preceded by a gentle dose of sulphate of magnesia.

If a diseased tooth is the cause of ear-ache, it should be extracted, or remedies applied for the relief of pain to the tooth. For this purpose opium and camphor may be applied directly to the tooth, or ether on the cheek of the affected side.

In the decline of malignant fevers, ear-ache sometimes supervenes, which, when severe enough to require medical attention, is overcome by the common topical applications. Sialogogues are recommended by Dr. Good.

Dr. Kennedy of Glasgow has broached a new practice in the treatment of acute inflammatory ear-ache.

The following case illustrates his pathological and therapeutical views.

"D. G. a lad of sixteen, of full habit and healthy, experienced a general chilliness, and other feelings of discomfort, in the evening after travelling in a stage coach, the windows of which were occasionally let down during the journey. At the same time the atmosphere was moist and cloudy, while a cold wind blew from the north-east, and his right side was, in consequence exposed to its action. At night he bathed his feet in warm water, had a warm drink, and went to bed, complaining very much of sharp wandering pains in the throat, neck, and right side of the face, with increasing difficulty of deglutition, and a stinging, deep-seated pain in the ear. Next morning early, he was roused from an unrefreshing slumber, by a severe paroxysm of ear-ache, accompanied with aggravation of all the precursory symptoms. For that day and the following, he was subjected to the discipline of a domestic treatment, composed chiefly of saline aperients, in defective doses, frictions of the throat, with ammoniated liniment, and the insertion of laudanum on cotton into the affected ear. Such means however proving insufficient, the disease progressively advanced, and late on the third day came under my observation as a true otitis, distinguished by the certain signs, local and general, of inflammatory excitement. On this occasion, slowness of the bowels, loaded tongue, heat and constriction of the skin, hoarseness, head-ache, with throbbing of the cephalic and cervical vessels, difficulty of swallowing, sense of cold all along the spine, excessive sensibility, and tumefaction of the right side of the face, eyelids and neck, and an excruciating pain within the ear, which underwent intense exacerbations, with much disturbance of the respiratory and sanguiferous functions, afforded the grounds of a therapeutical indication.

Without loss of time, an active emetic, thirty grains of ipecacuanha, and three of the antimonial tartrate, was administered: its effects were powerful but not excessive; and the advantages derived from them were immediate and decisive. Before the last paroxysm of vomiting ceased, all the more urgent symptoms had nearly subsided; and the patient on reclining himself to rest, soon fell into a tranquil sleep, during which a general and profose perspiration supervened. Before midnight three copious alvine dejections were obtained: and he passed the morning in a state of uninterrupted repose."

Dr. Kennedy concludes, from the history of this case and others, that acute, and even complicated otitis, may be subdued by emetics and cathartics without the assistance of blood-letting.

I have pursued the course here adopted in two similar cases, but without the same fortunate result. In both instances bleeding topically, blisters and warm fomentations, eventually overcome the inflammatory diathesis. Indeed, from direct experience and analogy, it is very doubtful in the acute forms of the disease, simple or complicated, whether any other remedial agents would accomplish the cure. The usual characteristics of inflammation on visible parts are heat and pain, redness and increase of the part diseased, and no doubt similar changes exists in all internal inflammations, or those which are not ocular. It is at first limited to a point, but by continued sympathy embraces contiguous parts, and sometimes parts so remote as to excite no little astonishment.

Mr. Hunter explains very beautifully the origin of inflammation, by comparing it to a blush, or a simple increase of the diameter of the vessels in consequence of the application to them of the irritant, whatever it may be which originates this new action.

H. S. mate of the schooner Maryland, had a severe attack of bilious fever, June 1827, directly after leaving the port of Tampico. In consequence of laying under the steerage hatch, on the night of June 27th, in a hard shower of rain, and high wind from the north-west, his left ear being exposed to their combined influence, the next morning he suffered severe pains in his ear and temple. He vomited almost incessantly for several days during the incipient stage of his fever, which afforded no relief to the ear-ache; but on the contrary, increased the paroxysms. Eventually he came under my care in the quarantine hospital, in a very reduced and feeble condition, and the pain in the ear was mitigated, and at last cured, by the repeated application of blisters behind the ear, and occasional purges.

Nevertheless, it is probable, that when the excretory ducts and vessels of the ear partake of the collapsing influence of cold, in common with the head; and soreness of the face, and stiffness of the cervical muscles, prevail in addition to the pains of the ear, relief may be procured by the nauseating effects of emetics, creating an increased excretion of the salivary glands, and Schneiderian membrane; and relaxing the extreme vessels in the meatus externus, and contiguous parts.

My practice is, when called upon to prescribe for otitis, where the general system and brain are not affected, to direct a purgative medicine, pediluvium of hot water, and cotton impregnated with the tincture of digitalis inserted into the ear. It has afforded according to my observation, ("cæteris paribus,") more alleviation than laudanum. But to depend upon that or any other medicine wholly, when the constitution is affected, would not be consonant to sound therapeutical views. The general symptoms, idiopathic and sympathetic, must not be neglected.

The following cases are offered in illustration of my views and practice, in this painful and sometimes dangerous affection.

Case I.—J. S., seaman, aged twenty-four years, a stout, robust man, slept on the deck of a vessel on the night of September 30th, 1823. The early part of the evening was clear and sultry; during the night the wind hauled round to north-west, and blew fresh for some time, and was followed by a hard shower. At daylight the thermometer was 47°. The rain awakened him, he went below and fell asleep in his wet clothes.

October 1*st*, *P. M.*—I was requested to visit him. Complained of a dull pain in his right ear, which had been exposed, considerable weight in his head, and indisposition to eat. ℞. Hydr. sub. mur.

gr. xx.; convol. jal. gr. xx. and a bandage of flannel to be bound round the ear.

2d.—The medicine operated copiously; passed a very restless night; pain in his ear sharp and lancinating, extending to the temples; pulse 96 a minute; tongue slightly furred. Venesection, ℥xx. ℞. Sulph. mag. ℥j. and apply a blister behind the ear. During the day experienced a little relief.

3d.—In great agony, and flighty all night. Pain in his ear continues sharp and cutting; pulse full and strong; very irritable. Venesection, ℥xx. Renew the epispastic, and give ol. ricin. ℥j. Tepid water to be injected into the external meatus. Symptoms much extenuated during the day. At night the pain returned with great severity. I dropped ten drops of the tincture of digitalis into his ear, placed in the meatus cotton impregnated with the tincture, and administered forty drops of laudanum.

4th.—Slept well the latter part of the night; entirely free from pain this morning. The disease was completely subdued, and he had no return of it.

Case II.—R. B. a shoemaker, aged thirty-one years, was engaged with a companion in a pugilistic affair on the 22d of February, 1825. During the fray his antagonist struck him on the left ear with a large stone, which, from the violence of the blow, terminated the conflict.

On the 25th, when I first saw him, complained of severe pain in his ear. It was tumefied, and the external meatus filled with coagulated blood. I ordered twenty leeches to be applied behind the ear. ℞. Sulph. mag. ℥j. and the coagulated blood washed away with warm water.

26th.—Pain in the ear excruciating, extending to the crown of the head, and stiffness of the cervical muscles. Venesection, ℥xij. ℞. Ol. ricin. ℥j. and a pediluvium of hot water.

27th.—Passed a very uncomfortable night. This morning flighty; incoherent in his observations; pulse 86. Venesection, ℥xvj. ℞. Ol. ricin. ℥j. and a common bread and milk poultice applied over the affected ear.

28th.—No better; pains lancinating through the ear and side of the face. Venesection, ℥xiv. A vesicatory behind the ear. ℞. Sulph. mag. ℥j. P. M. Much relieved.

March 1st. Passed a tolerable night; pain confined entirely to the ear, and throbbing; general excitement alleviated. Directed warm olive oil into the ear, a pediluvium of hot water, and the blister to be dressed with basilicon ointment.

2d. Pus discharged from the external meatus; violent symptoms all gone. Tepid water injected two or three times a day to carry off the pus. A moderate discharge continued for a few days, and then ceased; all constitutional irritation terminated.

A dull and heavy pain remained for sixteen days, which was meliorated, and eventually ceased, upon keeping cotton saturated with the tincture of digitalis in the ear.

I do not assert that the tincture of digitalis cured these cases; unquestionably much is to be attributed to the previous reduction of the phlogistic diathesis by venesection, &c. Relief, however, speedily followed the application of digitalis, especially in the first case. This medicine, it is notorious, has a direct and powerful sedative influence on the arterial system when taken into the stomach, and why may it not operate externally in a similar manner? My object, however, is to state facts, and not to theorize.

That digitalis reduces vascular action is indisputable. Some eminent physicians have confided so much in its sedative powers as even to make it a substitute for the lancet in the incipient stages of inflammation. Although this practice cannot be approved, there is strong reason to believe, that like opium, it has been excluded in cases of reduced arterial excitement, when prompt and permanent benefit would have succeeded its administration, both internally and externally.

That the capillaries of the part are always the seat of inflammation, is well established by Bichat, and the physician who has never seen a speedy reduction of topical inflammation by local remedies, after the failure of the most copious and general evacuations, has had a very limited experience, or been culpably negligent in his observations.

ART. VI. *On Gangrenous Erosion of the Cheek.* By SAMUEL WEBBER, M. D. of Charlestown, New Hampshire.

IN the American Medical Recorder, for July, 1827, there is a paper by Dr. JACKSON, of Northumberland, Pennsylvania, containing a number of cases, with remarks, of a disease of children, which he proposes to call Gangrænopsis, being the same called "Gangrenous Erosion of the Cheek," by BURNS and UNDERWOOD, in connexion with which Burns slightly notices, under the name of *Noma*, another and more destructive variety. The complaint, in its severer forms, appears to be one of rare occurrence, and is little noticed by medical writers. Milder instances of it, if I may judge from my own limited experience, are not very unusual, but are passed over without particular notice by physicians, in consequence of being considered merely as varieties of aphthous sore mouth with which children are frequently afflicted as a concomitant or sequel of other diseases, particularly bowel complaints. Still they agree so well in every respect, except severity, with Dr. Jackson's description, as well as that of the abovementioned writers, that I cannot but consider them as modifications of the same disease. It has been my fortune, in the course of two or three years, to meet with four instances, three of the milder kind, and one of the most severe form, answering to the *Noma* of Burns. These I am induced to make public, with the view of contributing any little in my power to the elucidation of a malady obscure in its nature, and which seemingly has attracted but little notice.

Case I.—I was requested to see a female child of about two years of age, on account as was stated of a bad sore mouth, which had lasted some days and resisted all common domestic remedies. I found her with the left cheek very much swelled, tense, shining, and white, with a slightly marbled appearance. The swelling on one side extended down on the throat over the submaxillary and sublingual glands, upwards to the eye, forward over the ala nasi of that side, and the whole of the upper lip. From the pain and soreness it was with difficulty I could get the child to open her mouth sufficiently to let me see any of the internal surface of the cheek, and my view was very imperfect. The gums and inside of the lips were swollen and aphthous. The swelling of the cheek seemed to project internally, so as to press between the teeth when they were separated, and on the centre of the swelling was a whitish spot about the size of a half dime, seemingly with raised edges and inflamed base. The secretion of saliva was profuse, so as to keep up an almost constant dribbling, and the breath had a peculiarly disagreeable smell, like that of putrefying animal matter. The child's general health did not seem much affected; she had previously been troubled with diarrhœa, which had however then ceased. There was a little appetite, but she was unwilling to take any thing but drink, apparently from the pain of swallowing. The tongue was furred, and there appeared to be a little febrile irritation, as if arising from the local disease. The treatment pursued was gargling and sponging the mouth, particularly the inside of the cheek, several times a day, with the following mixture. Muriatic acid, alcohol, āā. gut. xv.; water, ℥j. a little being swallowed more diluted after each abstersion. A purgative of four grains each of calomel and rhubarb was given, at first every day, after two or three repetitions every second or third day, till the bowels appeared in good order and the tongue clean, after which rhubarb alone was given as a laxative till the cure was complete, which took place in about three weeks; the diet was of mucilaginous and farinaceous drinks at first, and afterwards of milk and cracker. The amendment was slow and gradual; the swelling subsiding, the salival discharge becoming less, the ulcer contracting, and the fœtor of the breath diminishing, till they finally disappeared.

Case II.—In August of the same year, 1827, a much slighter case occurred in a younger subject. This was a feeble child, of eighteen months old; who had suffered greatly all the preceding summer, first with hooping-cough, and then with frequent and troublesome diarrhœa. The general character was the same as in the preceding case, but the diseased appearances less strongly marked. The cheek was perceptibly but not greatly swelled, and the white spot as large as a small vest button. It gave way to infusion of *Statice limonium* with alum and honey as a local application, together with the internal use of cinchona and carbonate of soda, in infusion, for the general health.

Case III.—This occurred in the succeeding October, and followed a severe erysipelas of the right leg, beginning at the ankle, and extending to the groin before it was finally subdued, and arising from a slight scratch, as was supposed, from a bramble, on the inner ankle. The patient was a tolerably healthy girl of twelve years of age. In severity this case was about midway between the two before related, and yielded to similar local applications, with the use of light nourishing diet.

Case IV.—This happened in September, 1828, in a little girl ten years old. It ensued upon typhus, in which diarrhœa had been a troublesome symptom. About the fourteenth day, when the fever was apparently beginning to abate, she complained of a feeling of soreness and pain in the left cheek, not far from the angle of the mouth. The part was slightly swollen, somewhat hard and reddish, like the commencement of a boil. Volatile liniment with laudanum was applied, and the redness disappeared, though the swelling continued, being however less hard and rather more diffuse. A day or two after some aphthæ appeared in the mouth and fauces, for which a gargle of diluted muriatic acid was employed. She complained, however, of the cheek's being hotter and sorer, and the swelling had evidently increased. On the inside of the cheek it protruded in a ridge between the teeth. Lead water was used externally as a constant application, in addition to the occasional use of the liniment above mentioned, and the inside of the mouth was frequently touched with honey acidulated with muriatic acid, small quantities of wine were given, and one-fourth of a grain of sulphate of quinine thrice a day, also small doses of Dover's powder to regulate the bowels, still rather too loose, and to procure sufficient rest. The cheek nevertheless continued to swell, and the breath became very fœtid with the odour before mentioned. The aphthæ nearly disappeared in a day or two, but upon the most prominent part of the internal swelling of the cheek was a kind of flabby pustule or blister, seemingly beneath the whole thickness of the internal integument, which over the swelling was opaque and of a dirty white colour. This broke the same evening, discharging a small quantity of fœtid fluid, and leaving a sloughing appearance of its membranous covering. It was repeatedly touched during the night and the following day with a strong preparation of muriatic acid and honey, sufficiently caustic to corrugate the sloughing membrane and make it settle down below the level of the surrounding parts. This it was hoped would put a check to the diseased action, and cause the slough to separate. Notwithstanding, it continued to increase during the subsequent night, and on the next morning had nearly reached the angle of the mouth, which looked dusky, cracked, and approaching to a state of gangrene. An eminent practitioner from a distance met me in consultation this morning, and advised carrot and fermenting poultices with charcoal over the cheek, a small blister externally across the angle of the mouth, and one on the inside of the cheek, of a size sufficient to cover the slough and the surrounding sound edges, while the internal remedies were continued in increased doses. The disease however proceeded with redoubled rapidity. Gangrene in undisguised blackness passed in a few hours across the external blister, and at the same time came through the cheek opposite to the point on the inside first attacked. In spite of the assiduous application of fermenting poultices with charcoal, these spots spread so as to coalesce in the course of the night, and by next morning to involve most of the unattached portion of the cheek. The case was now deemed hopeless and dissolution was soon expected. The fœtor being excessive, with a view to lessen it, the part was covered with a cloth wet with a solution of chloride of lime, (bleaching powder.) This also lessened the rapid spreading of the gangrene so much, that for hours it seemed almost entirely stationary, but did not become wholly so, though it went forward very slowly, till it had covered the whole of the swelling existing at the time of its commencement, reaching almost to the lower eyelid, over the membranous part of the nose on the same side, the septum, two-thirds of the lips, and half of the chin, including all the cheek to below the under edge of the lower jaw, and backwards nearly to the ear.

The parts were completely sphacelated, and had nearly separated, when at the expiration of twelve days from the first appearance of danger, the little patient died, completely exhausted. All the peculiar symptoms of the fever had entirely subsided, long before her death.

Charlestown, N. H. August, 1827.

ART. VII. *Remarks on the Climate and Vegetation of the Fortieth Degree of North Latitude.* By RICHARD SEXTON, M. D. of Baltimore, Maryland.

EASTWARD from the most elevated ridge of the Allegany mountains, the fortieth degree of latitude embraces land for the distance of about two hundred and fifty miles, comprehending a portion of each of the states of New Jersey, Pennsylvania, Delaware, Maryland, and Virginia. This extensive territory comprises three well defined natural divisions: one, situate east of the falls of the rivers, is known by the name of the low country; another, placed between the low country and the foot of the mountains, is denominated the high or hilly country; and the third is recognized in the mountains themselves.

The low country within the fortieth degree, is remarkable for the levelness of its surface; being, indeed, chiefly a plain, the undulations of which rarely attain the height of eighty or one hundred feet above the water in the rivers. The tide traverses the whole of this division, and the streams either partially or wholly contained within it generally diverge into wide, and, when compared with their breadth, shallow expanses of water. The line bounding the low country by passing through the most eastern falls in the rivers, commences near Philadelphia, on the Schuylkill, and thence tends toward the southwest; being found on the Susquehanna at Port Deposit, on the Patapsco west of Baltimore, and on the Potomac at a short distance above Washington. In soil, the low country is generally sandy and unfertile, being indeed in some places quite sterile, though productive districts are interspersed throughout the division, and particularly along the borders of the streams.

West of the low country, the surface immediately runs into hills, the summits of which are elevated from four hundred to one thousand feet above the range of the tide. Here the soil is frequently rocky or stony, and whilst the eminences are barren, the vallies are famed for their fertility. This hilly tract measures, in a western direction, from thirty to ninety miles, ending at the Conewago and Monocasy, which rivers meander along the foot of the mountains. The various ridges of the Alleghany chain, ascend, in this latitude, to the height of from one thousand five hundred to three thousand three hundred feet over the plane of the Atlantic.

Forests are universally acknowledged to exert a powerful influence on the climate of a region. By embracing in one view the three divisions just described, we presume that the trees and shrubs which originally shadowed almost the whole surface, will be perceived to cover at present less than one-half of it. In the low country, two-thirds of the soil without doubt are cleared and under cultivation, whilst the mountains, both from the nature of their surface, a portion only of which will admit of tillage, and from the paucity of their inhabitants, have undergone but a small change from their primitive condition.

To these prefatory remarks we may add, that since difference in altitude will always cause a variance in meteorological phenomena, each of the natural divisions of the territory under consideration, must, consequently, exhibit certain features of climate peculiar to itself. The general temperature of the atmosphere, is, of course, greatest on the low country, and least on the mountains. On the latter, the weather is generally similar to that which occurs along the sea-coast, two and three degrees to the north. Within one degree of latitude, however, little other variation can be detected in the aerial phenomena, than that produced by diversity of elevation, or that effected by dissimilarity of surrounding surface.

The four seasons attributed to regions in the temperate zones, are well defined in the fortieth degree. Each season nearly or quite occupies its proportionate part of the year. The spring is recognized in March, April, and May, by a steady and gradual increase of the temperature, which averages for the whole period about 54°, and developes the foliage of the whole vegetable kingdom. The summer, evidenced by the extreme heats of the climate, follows in June, July, and August, which months possess a mean temperature of 74° to 75°.

The autumn is marked in the three succeeding months by the gradual decline of the heat, so that its average becomes about 56°, and by the slow but complete extinction of deciduous vegetable life. The winter, following in December, January, and February, with its train of snows and frosts, offers a mean temperature as low as 35° or 33°. Allusion is here made to the seasons in the low country, to which division all other remarks are to be considered applicable, without the contrary is expressed.

It were a perfection in the climate of any region did the atmospheric phenomena always progress in some regular manner, since all those numerous transactions in society which are more or less influenced by them, could, in that case, be executed with a greater probability of success; and human life itself, constantly jeopardized and destroyed from ignorance of future weather and temperature, would be held under a less precarious tenure. The climate of no part of a temperate zone, however, is distinguished by such regularity. In this latitude, where the weather is noted for a peculiar inconstancy, we scarcely hope for a similarity in the seasons of two successive years, as experience proves that the same season is constantly varying in its heat, in the quantity of moisture, and in the number, suddenness, and excess of its vicissitudes. The first effects which the vernal atmosphere produces on vegetables, are usually perceived in the first or second week of March, by greenness commencing on the earlier developing plants. The severe frosts, to which March is obnoxious, nip these early productions, and the month altogether is too cold for a hasty vegetation. But in April, the unfolding of leaves and flowers advances speedily, and after this month meets with no interruption. The range of the dates at which vegetation commences is very wide. February sometimes adorns the fields with the verdure of their miscellaneous plants. In 1824, the pastures appeared green in January, whilst sprouts two inches in length protruded from the common elder, *(Sambucus nigra,)* and similar untimely appearances are recorded of January, 1828. On the other hand, all the deciduous organization has been observed locked fast within the bud, until the concluding days of March.*

A period of note in the progress of the year, is that of the display of the blossoms on the fruit and forest trees. The former commonly flower in April, and the latter at the end of the same month, and in

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* This was the case in the spring of the present year, 1829. We here remark, that all the facts it is found necessary to relate, were obtained either from our own observation, or from authority of unquestionable accuracy.

May. The range in the dates at which, in a series of years, any kind of tree commences to bloom, measures in length in an inverse ratio to the quantity of heat necessary to effect this expansion on it. Thus, during the last nine years, the dates of the blossoming of the peach tree include one month, whilst those of the Liriodendron but eleven or twelve days. The peach tree, in 1808, was noticed in the precincts and neighbourhood of Baltimore, covered with flowers on the 28th of February; and in 1828, the same development recurred in the south of New Jersey, during the first week of March; but in 1821, this tree did not blossom until the 29th of April. These dates are offered as the extremes of the period during which efflorescence commences on this extensively cultivated fruit-tree.

The idea of a vernal season is habitually associated with those of a mild temperature and a serene sky, and although an inhabitant of this latitude may occasionally in the spring enjoy the reality of this poetic combination, yet the facts fail to distinguish the chief part of the weather of the season. The atmosphere during March and April, and frequently during May also, is excessively variable in its temperature and perceptible moisture, whilst chilling and wet weather occupy a considerable portion of the time. This character of the spring is principally obtained from the extensive sweep taken by the prevalent winds: the south-west brings the air from the tropic, and even from near the equinoctial line;* the north-west comes forth from regions beyond the mountains and lakes, where the snow and ice are as yet undissolved; and the north-east arrives from the seas about Newfoundland, which at this time in the year are covered with a cold atmosphere, remarkably surcharged with moisture. The change of one of these winds for another, will cause the temperature of one day to differ 20° or 25° from that of the preceding, and the north-west following the south-west often effects a sinking of the mercury 28° or 30°; as much sometimes as 35° between an afternoon and the following morning. Such depressions in the thermometer, which before the middle of April ranges commonly between 40° and 60°, and rises but on a few days to 65° or 70°, must consequently at times effect a congelation of the water in the atmosphere and on the ground: less or more of snow and ice is indeed always expected in March. In the last ten years there are recorded three instances of deep snow in April. The first is on the 14th of this month, in 1828, when the earth about the city of Philadelphia was covered six or seven inches deep, and sleighs ran for some hours on the highways. The second instance is on the 3d of April, 1825. In the third instance, which occurred in the first week of April, 1820, the snow, which fell to the depth of five and six inches, remained on the ground in places for more than a week, whilst the cold succeeding the storm was sufficiently intense, on two mornings, to depress the mercury to 18°.* By the same event, the mountains were covered a foot and a half in depth. In the year 1803, the ground was concealed by a fall of snow, on the 8th day of May. At this advanced date, the production of snow must, without doubt, be analogous to that of the hail frequently falling in the middle states in May and June, and to that of the sudden precipitation of water, attended with lightning and thunder, common to the whole warmer portion of the year. The latter phenomena are indisputably the effect of irruptions of cold currents, from the higher regions of the atmosphere into the warmer and moister stratum of air, lying next the surface of the earth.

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* See Volney's View of the Soil and Climate of the Uni d States.

April forms the customary limit to frost. During the first ten days we usually observe the last instances of a freezing temperature. In an occasional year, the north-west winds will depress the mercury to 29°, and 28°, as late as the twentieth; and ice on small shallow pools, which may be formed, according to Jefferson, with a morning temperature as high as 38½° will be noticed in the first part of May. It is the occurrence of frost after the blossoming of the fruit trees, that renders a profitable cultivation of them so uncertain. To failure in the production of their fruit from this cause, the apricot, the species of *Amygdalis,* and their varieties, are especially liable: but, it is a curious fact, that the fortieth degree is more propitious to the cultivation of these fruits, than the latitudes adjoining on the south, for in them the trees blossom earlier, whilst the severity of the frosts of April and May appears to be very slightly diminished.†

The extreme heats of the climate usually commence in the beginning of June. During this month, July, and August, the daily fluctuation of the mercury is customarily embraced by points between the sixty-fifth and eighty-fifth degree: and, on averaging the highest temperatures of the whole number of days, there will commonly be obtained a result of from 80° to 82°. May and September, with the summer months, contain all the hot weather; and when these important five months exhibit ordinary warmth, they include sixty or seventy days, with a heat in the afternoon as great as 80° or more.

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* Since the thermometer is affected variously in different situations, it is necessary to state, that throughout this paper wherever reference is made to the indication of the instrument, its position invariably was in the open air, eight, twelve, or fifteen feet above the ground, where it was freely exposed to the wind, and in the middle parts of the day surrounded by an extensive shade. Without a particular hour of observation is specified, but two kinds of temperature are ever alluded to; the minimum and the maximum of each twenty-four hours.

† At Richmond, Virginia, on the 25th of April, 1823, tubs of water exposed through the night were found frozen over. This city is in the latitude of 37½°.

The coolest summers are almost always those that are most rainy. Their coolness obviously results from the frequent communication of the temperature of the higher,* to the lower strata of the atmosphere, by the descent of the rain, from the subsequent evaporation of the water, and from the frequent canopy of cloud, which prevents the earth from receiving its usual amount of heat from the sun. The summer of 1814 is memorable for uncommon wetness; and its coolness was proportionate, since, according to a statement in the Medical Recorder, of 1818, the mean heat, at 3 P. M., of June, July, and August, collectively, was lower in 1814, than in any other year, from 1793, to that of the date of the publication. Coolness throughout a summer is, however, occasionally attended by dryness, as was instanced in 1816. During a considerable part of the remarkable summer of this year, a haze was diffused in apparently the superior regions of the atmosphere; and which at times intercepted so many of the sun's rays, that he could be attentively viewed without inconvenience to the eye. What subjected this phenomenon to general remark, was, that the sun's disc, at a part of the time, contained several dark spots, which, being visible without the aid of glasses, excited universal attention. White frost was observed on five successive mornings, terminating on that of the 11th of June; also on the 21st of the same month, and even in the first week of July. At the latter part of August the ground was again sprinkled with frost; the mercury having fallen to 46°. Many districts suffered by drought during this summer; and the frosts of June, with the general coolness of the season, were so unfavourable to the maize, that in some places not half the usual crop was produced: the later ripening varieties failing entirely to mature.

The most intense heats of the summer are designated on the thermometer by 90, 93, 96, 98, and 100 degrees. The mercury arrives among these points, on at least three or four days of every summer, and in some seasons on ten or fifteen days. The frequency of the elevation to these extremes is not always proportionate to the general temperature of the season.

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* On the morning of the 4th of May, 1827, frost and ice were observed, and the tender garden plants were quite destroyed, even as far south as at Cheraw, in South Carolina.

Among the summers of the present century, those of 1819 and 1827, are the most distinguished for extreme heat. We are informed from the observations of Mr. Brantz,* that during the five warm months of the former year, the mercury, even as early in the afternoon as at two o'clock, stood at or over 80° on eighty-one days; on thirty-three of which number the temperature exceeded 89°.

In 1827, from the first of May to the 30th of September, the thermometer rose to or over 80° on ninety days. Twenty-two of these exhibited the instrument above 89°. The extraordinary heats of 99° and 100° were indicated in all cool out-door situations, on the 5th and 6th of August.

The higher situations on the mountains are never visited by heats of that intensity, remarkable in those experienced on the plains. Invalids and fashionables, who, in the summer, retire to Bedford, situate near the most elevated ridge of the Alleghany chain, find thick clothing, with fires in the mornings and evenings, necessary to their comfort in July and August. White frost is occasional in these months, and even ice has been gathered from small pools of water in July.

The autumn is, to the majority of the population of this parallel, the most agreeable of the seasons. During the latter part of September, and quite the whole of October, the weather is most commonly serene, and the temperature usually remains in that condition which neither produces a sensation of unpleasant warmth, nor, to the healthy, sufficient coldness to render fires necessary for their comfort. This period has been declared by Americans of observation, who have spent years in Italy and southern France, to excel the most pleasant seasons of those countries, so famed for the beauty of their climates. Slight white frosts are noticed on low grounds in the latter half of September, and general white frosts, caused by a morning temperature of 42° and 40°, appear in the first ten days of October. These expedite the change and fall of the leaf on the delicate forest trees, though they injure but slightly the verdure of the hardy trees, and that of the tender field and garden plants, as all these vegetate until the latter part of October, when a series of heavy frosts, produced under a temperature near or below the freezing point, destroys almost the whole of the deciduous vegetation.*

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* This gentleman has recorded the meteorology of several years. His very accurate and instructive observations were published, in monthly tables, in the Baltimore Gazette.

The variation in the dates of the occurrence, and in the severity of the first autumnal frosts, is considerable. September sometimes passes away without a temperature lower than 50°, which is a depression scarcely great enough to effect the slightest congelation of the dew. In 1822, the tobacco, palma christi, and plants of a similar tenderness, were seen in open places, but little injured, as late as on the 25th of November. In 1823, on the contrary, the same plants were destroyed in the last week of September. But although we view occasional irregularities in the weather of the autumn, it is, nevertheless, distinguished in successive years by a greater similarity in its meteorology than appertains to any other season.

The winter is characterized by excessive variability. This portion of the year consists entirely of a continued alternation of snow and severe frost, with storm, rain, and occasional temperate and serene weather. The average heat of any of the months, when compared with that of the same month in another year, may be found to differ 20°, or even more, and the more remarkable phenomena of the season, the ice and snow, constantly vary in different years, both in their quantity and in their duration.

The falls of snow are commonly under six inches in depth, and they occur at five, seven, or ten times during the three winter months. It is unusual to see the surface of the ground entirely or nearly covered with this emblem of the season for more than a week at once, for the sun, with a clear sky, dissolves it in open places, whenever the temperature of the air rises even near to the freezing point. But, in some years, falls of snow happening in quick succession will keep the surface in exposed places, if they be level, quite covered from three to five weeks together. Thus, in 1817, the snow lay from two to six and eight inches deep, from the 19th of January to about the same date in February, and in 1820, the surface was hidden by it during nearly the whole of January. In the winter of 1820–21, snow concealed the ground, with the exception of a few of the eminences, from the 26th of December to the first week of February, and at a part of the time measured, on a level, eighteen inches in depth.

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* Similar to the course of the late frosts in the spring, the early frosts of the autumn extend themselves far to the southward. The first and only ice that was made at Baltimore, in October, 1827, was formed, one-tenth of an inch in thickness, on the 27th of the month. At the same date, as the public prints informed us, ice as thick as a dollar, was noticed at Charleston, South Carolina.

As instances of that class of winters which are most deficient of snow, may be offered these seasons in 1825–26 and 1827–28. In the former, snow fell but once, to remain on the ground more than a day; its depth was then four inches, and it had disappeared in a week after its fall. No snow was perceived on the ground, either in the preceding autumn or in the following spring. During the months of December, January, and February, 1827–28, snow was noticed on the earth but thrice, and the surface was never covered for twenty-four hours together.

The following is a statement of the extreme depression of the mercury in the last thirteen winters. One fact relative to the extremities of the temperature of this climate may here be remarked. In the last thirteen years, the degree of the greatest heat of each summer has occurred within the space of 8°, whereas the degree of the greatest cold of each winter has fluctuated among 27°, as the succeeding table evinces.

1816–17,	— 4°	in February.	1823–24,	. . 8°	on the 5th of Feb.
1817–18,	— 2	on the 10th of Feb.	1824–25,	. . 9	on the 4th of Feb.
1818–19,	. . 5	on the 18th of Dec.	1825–26,	. . 4	on the 1st of Feb.
1819–20,	— 2	on the 1st of Jan.	1826–27,	. . 4	on the 28th of Dec.
1820–21,	— 11	in January.	1827–28,	. . 16	on the 22d of Jan.
1821–22,	. . 1	on the 5th of Jan.	1828–29,	. . 11	in Jan. and Feb.
1822–23,	. . 6	in February.			

In conclusion of these remarks on the course and variations of the seasons, we adduce the mean temperatures of the chief part of the months of six late years. The two columns of observations, formed from noting the minimum and maximum temperatures of every day, were added up at the end of the month, and the amounts divided by the number of their respective observations. From averaging two results formed by this method, each of the numbers which follow were obtained.

YEARS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1823	33.3°	27.5°	39.7°	54.2°	62.7°	70.2°	75.6°					
1824	36.3	34.2	40.4	52.6	62.2	71.8	77.2	74.5°	66.0°	57.1°	46.3°	40.1°
1825	36.	36.6	45.8	53.	62.7	75.1	79.1	73.8	66.6			33.8
1826	34.2	36.9	45.3	50.1	70.2	75.2	77.3					
1827	30.4	40.9	46.7	59.6	65.5	72.	78.3	76.8	66.1	56.3	42.	41.5
1828	37.6	43.7										

That an important change has taken place in the climate of this latitude since the early periods of its settlement by Europeans, will not at present admit of dispute, although fifty or sixty years back.

when the opinion was first agitated, there were many who did not give it credence. The meteorological history of the last twenty or twenty-five years is quite deficient of those relations of long-continued cold, and deep and durable snows, which are recorded in close succession in the histories of the last century. A similar amelioration in the temperature of the colder portion of the year has happened in all the higher latitudes, when the countries which they traverse had become thickly peopled, and their soils had been subdued to a correspondent cultivation. It is now no longer doubted but that clearing the surface of the forests produces this effect. The ground being freely exposed to the rays of the sun, by the destruction of the shrubs and trees, becomes in consequence more intensely heated, and its incumbent air is immediately supplied with a greater quantity of caloric, for the earth is the grand reservoir whence the atmosphere receives its warmth. By this simple and readily explicable process, Italy and France now afford a congenial atmosphere to the orange and the olive, where the winters, one thousand eight hundred years ago, exhibited the rivers bound with ice, and the earth deeply and permanently covered with snow.

The more remarkable particulars of the change, which the climate of this latitude has undergone, appear to be as follow:—1st, the wind is more variable; 2nd, the winds from the western semicircle have declined in number; 3rd, snow and ice are formed in smaller quantities, and are less durable, and the general temperature of the winters has increased.

1st. On referring to the causes, which are known to influence the motions of the atmosphere, the conclusion is obvious, that the aerial currents would move with less regularity and steadiness, after large portions of surface, cleared and thereby rendered disproportionately hot, had become new powers in effecting motion in the atmosphere, than when acted on solely by those causes, which permanently belong to the continent. There are but few facts preserved from the oblivion of former ages, which relate to this subject. A late volume of the Transactions of the American Philosophical Society, contains the translation of the diary of a Swedish clergyman, who noted the courses of the wind on the Delaware, in the seventeenth century. I have not the work now before me, but from recollection, I state, that the tenacity of the wind to a few neighbouring points of the compass, as described by the Reverend observer, for exceeds that exhibited in journals of the winds of present years.

The Swedish professor, Kalm, who travelled in North America, in the years 1748 and 1749, has formed some valuable records of its climate. In his register of the courses of the winds at Philadelphia, and at a situation in New-Jersey a few miles southward of that city, we find the currents occasionally flowing from three or four adjacent points of the compass, for five and seven days together: and, in the tabular observations of the celebrated Bartram, which were taken in the summer and autumn of 1749, and are appended to the work of Kalm, the wind is marked at several times to have blown from one direction five or six days in succession, and once, in the latter part of July, from the west for the space of eleven days. But the inconstancy of those winds of longest continuance, the N. W., N. E. and S. W. is now so increased, that, allowing to each an eighth part of the circle for its vacillancy, its duration is rarely over two and three days. Tables of the winds for five years, offer not a single instance, when currents from within any eighth part of the compass, existed more than five days together.

2nd. Jefferson, in his Notes on Virginia, remarks relative to the east and south-east breezes, which commence in the afternoons, of the warm months especially, "that they have advanced into the country very sensibly, within the memory of people now living, as they formerly did not penetrate far above Williamsburg, but are now, (1782,) frequent at Richmond, and occasionally reach the mountains." There is no reason to suppose, that this increase of the easterly winds was the effect of any other cause than the cultivation of the soil; from which similar changes in the motions of the atmosphere has doubtless been produced in the whole maritime region, at least of the middle latitudes of the United States.

Dr. Williamson, writing in 1770, observes, "that seamen, who are deeply interested in the subject, informs us, that in the winter season they have been beating off our coast, three, four, or five weeks, not being able to put in by reason of the north-westers: they are now seldom kept off twice that number of days.*

In the ten months, between the first days of August, 1748, and June, 1749, Professor Kalm has recorded four hundred and seventeen observations on the course of the wind. Of these, forty-six are marked with the cardinal points N. and S.: of the remaining three hundred and seventy-one, two hundred and seventy-three, or three-fourths, are on winds from the western, and ninty-eight, or one-fourth, on those from the eastern semicircle. Easterly and westerly winds occupy, at the present time, each about the same number of days in the year. Hence, we infer, that the decline of the westerly winds in eighty years, equals one-third of their number at the commencement of that time.

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* Transactions of the American Philosophical Society, Vol. I.

The greater frequency of the winds of the eastern semicircle, most of which receive the abundant evaporation from the Gulph stream, may be offered as a sufficient explanation for that increased dampness in our atmosphere which has been noticed by Dr. Rush and others.

3rd. All accounts concur in the assertion, that for many years after the first settlement of the middle colonies, the earth, in this latitude, was partly or entirely covered with snow for three or four months annually. Forty or fifty years ago, when the decline of this conspicuous phenomenon of the winter had become a subject of general remark, the usual depth of the snow, in this season, was according to Rush, from six to nine inches, though sometimes between two and three feet: and, in uncleared districts, it occasionally lay until the first week of April.

We are informed by the same author, that in the year 1740, the river Delaware was crossed on the ice in sleighs at Philadelphia, on the 16th of March, and that the navigation to that port, did not open until the 24th of the same month, and that in the winter of 1779–80, this river was frozen across, at the same place, for nearly three months. In the year 1705, snow is related to have fallen a yard in depth. During the winter of 1697–98, the Delaware was passable on the ice for sledges below Christiana creek; and the author, from whose work this fact is extracted, also states, that the same river is *seldom* frozen across at Newcastle.* Messrs. Mason and Dixon, whilst engaged in astronomical observations, about thirty miles west of Philadelphia, in the month of January, 1767, saw the mercury, in the open air, fall to 22° below zero. In the winter of 1783–84, the snow lay in many places in the south-eastern part of Pennsylvania, from two to three feet deep during the chief part of the season, and all the rivers, which were frozen up in December, continued bound until the middle of March, with the exception of a short time in January, when the ice was broken, but not destroyed. These are a few of the many instances to be gathered from history, which testify to that abundance of snow, and durability of cold, which, if not constant, was formerly very frequent in a series of winters in this latitude.

The season of 1820–21, exhibited more intense cold, and deeper snow, than any other winter of the last twenty or twenty-five years, and, probably, than any other within the present century. The navigation to the cities of Baltimore and Philadelphia, was closed from the 24th of December, to the 16th of February, a space of nearly eight weeks. A north-east storm on the 6th of January, buried the surface fourteen and sixteen inches deep with snow. The same month contained the whole of the very intense cold of the season. The mercury was observed below zero on three mornings: yet one circumstance is remarkable in comparing the temperature of January of 1820–21, with that of the same month in 1779–80: in the latter, the mercury, according to Rush, rose to the freezing point but on one day, whereas in the former, fourteen days are marked by Mr. Brantz above that point. The river Delaware was frozen over, in this winter, for twenty or twenty-five miles below Philadelphia.

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* Kalm's travels, Vol. I.

There are handed down to us, however, a few memorable instances in ancient winters, when a remarkable mildness usurped the place of their customary severity. Swedish records state, that flowers were seen in the woods in February, 1714.* In or about the year 1756, apple trees were noticed in full bloom, and bearing young fruit, in December. But we are assured, from the unanimous assertion of aged persons, as well as from the Indian adage, "winter never remains in the sky," a conclusion founded of course on long experience, that such untimely mildness, was either preceded or followed by a full measure of wintry severity.

The extreme degree of cold to which the fortieth degree is liable, is, perhaps, still as great as it was one hundred years or more ago. This extremity attends north-western winds, and according to the received opinion, that increase of the general temperature, follows solely from the clearance of the surface, since the countries north-west of the lakes, have not undergone such a change, the atmosphere cannot have been altered in temperature at their sources. And, although in passing to the sea, the cultivation which the mountains and lands eastward have received, may usually mitigate the coldness of these winds, yet, they must disseminate their original temperature along the sea-coast, whenever they are of long duration, whilst the country over which they proceed, is continuously covered with snow: for snow receives but little heat from the rays of the sun, whilst it refuses to conduct the caloric of the soil beneath. Within this century, the mercury has been seen at 14½° below zero, in the hilly country, a few miles from Philadelphia, and at 11° below the same mark, in the immediate neighbourhood of that city. But there will doubtless be an amelioration in this particular, when Canada and the United States shall become thickly peopled, and generally cultivated: in this latitude, then, like the same parallel in Europe at present, snow and ice will become rare phenomena, and the orange, the olive, and other vegetables of the same class, now strangers to the soil, will become objects of the labour and solicitude of the agriculturist.

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* Some plants require but a low temperature for the production of their blossoms. The red maple flowers at almost the commencement of the vegetating season: as also Pothos fœtida, Sanguinaria canadensis, Anemone nemorosa, and many others.

Baltimore, August, 1829.

Art. VIII. *Case of Disease of the Bones successfully treated by the Internal Exhibition of Arsenic.* By John Henderson, M. D. President of the Huntingdon County Medical Society. (Published by request of the Society.)

On the 10th of June, 1818, Miss Martha M'Elheny, aged seventeen years, was brought to Huntingdon, by her friends, in this neighbourhood, with a view of obtaining my advice and assistance in a deplorable affection of the bones. On enquiry, I learned that the disease was first noticed about eighteen months before, when two tumours were observed, of the size of a nutmeg, about the middle of the radius of the left arm; that these soon ulcerated, and from them nine spiculæ of bone were thrown off at different times; and that others were forming on other parts. For the removal of these tumours, she had placed herself under the care of a respectable neighbouring physician, who put her under a severe mercurial course, and continued the salivation for near two months; which reduced her so low that, (to use her own expression,) "she could not raise her hand," with no other good effect, than that, during the mercurial action, the disease was kept at bay. Her debilitated situation precluded any further trial of the medicine, and the treatment was abandoned, after which the disease resumed its course, and she was left to her fate. As soon afterwards as she had regained sufficient strength to bear a ride of a few miles, she was brought to me.

She was then labouring under extreme debility; countenance very pallid; dyspnœa and palpitation of the heart, to a distressing degree, upon the slightest exertion; constant irritative fever with night sweats; the catamenial discharge had never appeared. Her father and mother's family had been remarkably healthy, no scrofulous or other hereditary disease had ever appeared in either of them, as far as could be ascertained. Osseous tumefactions, of an oval form about the size of a small plum, had been formed around the second phalanges of two of the fingers and thumb of the left hand, as well as on three of the right. The fingers appeared as if they had been inserted through the tumours, (which were of a pale white colour,) retaining their usual size immediately above and below them. The toes and metatarsal bones of each foot were similarly affected, and there were deep ulcerations of the ossa calcis and ankle joints, one os mala, one of the spinous processes of a dorsal vertebra, and one os femur and tibia also partook of the disease, and from all that were ulcerated there exuded a very fœtid sanies, containing occasionally small pieces of bone.

Previous to this period I had met with but one case of an osteo-sarcomatous character, appearing to affect the whole osseous system; this was in the first year of my practice as a physician, and occurred in the neighbourhood of Chambersburg, in a child of Mr. Samuel Nicholson, about one year old. It being a disease entirely new to me, I requested the father of the child to obtain the advice of Dr. Physick, and I would carry his prescriptions into effect. Dr. Physick directed a small portion of the oxymuriate of mercury, in solution, to be given to the child daily, with a well-regulated diet; but upon a fair trial, even with very minute doses, we found that the stomach and intestines of the child would not bear the medicine, it bringing on distressing vomiting and dysenteric symptoms, to an alarming degree. It was then laid aside, and the child left to the operation of nature. In a few months the bones of the toes, as well as those of the fingers, separated and fell off, the ankle joints were dislocated, and it sunk under the disease.

This case, of course, showed no safe precedent by which I could be guided in the present one; neither had I ever met with a similar one in the course of my reading, (which I must acknowledge has not been sufficiently extensive,) that had been relieved by the internal use of medicine! It is true, I had met in my own practice, and also found in our books, a number of cases of a local nature, generally depending on local injury, in which amputation was the only remedy that held out a chance of relief; but when tumour after tumour arises in succession on various parts of the osseous frame, involving so many bones, as in the present case, shall we remain spectators of the ruin of joint after joint, and calmly view its inevitable tendency to the destruction of the sufferer, without making a powerful effort to arrest its progress? But, on the contrary, ought we not for that purpose rather push to the fullest extent any remedy that holds out the least prospect of relief? Here was a constitutional disease, a general affection of the whole osseous system, and requiring general internal remedies to correct it, and I was left alone to judge of what those remedies should consist.

From the effect of the mercury formerly given in arresting the progress of the disease for a time, and the idea I then entertained of its substituting its own peculiar action for that of the disease, until a more healthy one should be resumed by the system, and the inability to bear it for a sufficient length of time to accomplish this purpose, I was induced to turn my attention to the selection of a medicine of the tonic class, whose action could be kept up, if properly administered, to an indefinite length of time; and I accordingly fixed on the white oxide of arsenic. With the use of this medicine I had long been familiar, in cutaneous affections, chronic rheumatism, scrofulous ulcers, and diseases of the intermitting form, and well knew that under proper regulation it could be so administered as to run no risk of the constitution being injured by a judicious application of it. The preparation I used was a saturated solution, made by boiling any quantity of the oxide in common water, in a Florence flask, for fifteen or twenty minutes, and after it had subsided, and the solution become clear, it was fit for use. I commenced giving it in doses of five drops, combined with a little camphorated tincture of opium, three times a day; but, least it should not be sufficiently expeditious in its effects, I also gave in conjunction with it, for a few weeks, a vinous tincture of cinchona, and the red oxide of iron; however, the latter was soon laid aside, as being deemed unnecessary, and the arsenic alone depended on.

After the medicine had been taken about three months, the tumours that had not ulcerated ceased to enlarge; and those that were open began to close up; and many appeared to be entirely healed; when my patient was unfortunately seized with the hooping-cough, attended with severe pulmonary affection, which forced me to lay aside my medicine, until the new disease should be overcome; a period of nearly two month; when I found that all my previous exertions had been to little or no purpose, as the ulcers by this time had all opened out anew, and my patient nearly as ill as when I first prescribed for her. However, I had the satisfaction to know that I possessed a remedy at hand sufficiently powerful to controul, if not to eradicate the disease entirely, and with confidence entered on its use a second time. In my calculation, I was not disappointed, but soon found it producing its former salutary effect. I now gave positive instructions that on no account whatever, should it be laid aside; and fortunately no accident occurred to interrupt us in its further use. From this time all went on well; no new tumours were found; those already existing ceased to increase; and the open ulcers often throwing off some loose bone, soon healed. In about six months after resuming the medicine, the menses made their appearance; the disease seemed to be completely overcome, and I considered the cure confirmed; but through fear of a return, my patient of her own accord, continued long afterwards to take the medicine, which had now become so pleasant a stimulant, that she compared its effect on the stomach to that produced by a small portion of spirituous liquor. It always gave her an appetite for food, in which she was not restricted, but allowed whatever was most agreeable; no unpleasant effect whatever occurred at any time from its use, but the quantity could never be increased beyond five drops, without producing vomiting, and long afterwards, on trial, two drops were found to produce the same effect.

In November, 1819, a large collection of fluid was discovered high up in the muscles of the right thigh, which, by pressure, could nearly all be forced into the pelvis; no pain attended it; I believed it to be produced by an ulcerated state of some inner part of the os ileum, and it yielded to blistering, camphorated volatile liniment, and a roller.

The medicine was regularly taken, three times a day, (with the exception of the time that the hooping-cough prevailed,) from the 10th of June, 1818, to the 1st of November, 1819, and my patient has been ever since, as healthy as she or her best friends could wish.

ART. IX. *On the Rhus glabrum as a Remedy for Ptyalism.* By WILLIAM M. FAHNESTOCK, M. D.

WE are not fond of encumbering the materia medica with inert articles, nor do we feel ambitious of introducing new remedies, but yet it is not proper to reject a new substance without an impartial experiment, and particularly when one of gentle operation is proposed as a substitute for those of more irritating qualities.

The medications in use to check inordinate and protracted salivation, are all of a highly stimulating, astringent, and often corrosive nature, as borax, myrrh, bark, alum, nitric acid, &c. which seldom fail to aggravate the sufferings, and create deeper seated irritations. Having seen very alarming, and even fatal effects, from salivation and the remedies employed to controul it, our attention was directed to the use of the gentle astringents, as common green tea, &c. and finding much advantage from them, the experiments were continued to the milder articles, as the elm, sassafras, and sumach; from the latter we derived peculiar benefit, and have continued to use it with uniform and unparalleled success.

The first case to which it was applied under our observation, was a patient who had been treated with mercury, both internally and externally, for typhoid pneumonia, and which affected the system to the most distressing extreme. The face and eyes were very much swollen; the tongue enlarged and protruded, the internal surface of the mouth denuded, and the fauces in ulcers. A lukewarm gargle of the inner bark of the root of the smooth Pennsylvania sumach was ordered to be used every fifteen minutes, and mucilaginous drinks enjoined: relief was soon experienced, and in a few days the irritation was entirely removed.

The second case we shall mention, was a girl of nine years of age, who, for an attack of simple remitting fever, had the mercury exhibited so as to produce profuse salivation, which resisted all the irritating compounds of borax, myrrh, &c. and continued until it had effected anchyloses of the jaw, extensive caries of the upper maxillary bone, and sloughing of the cheek. She was now put under the care of a second physician, who, after a short time, abandoned the case in despair. She was then directed to the notorious *panacea* shop of this city, and was dosed with half dozen bottles of the celebrated nostrum, with no other effect than increasing the irritation, and extending her sufferings. In this state of the case we were asked to visit the child, and found her with her jaw perfectly fixed; the angle of the mouth sloughed away; the superior maxillary bone of one side carious, and discharging from four to six ounces of the most fœtid sanies every twenty-four hours; which excoriated the cheek, and rendered her extremely offensive to all her attendants. We recommended to the patient, as the only prospect of any relief, to submit to an operation, provided healthy action could be produced in the parts; which we anticipated from the correcting quality of the sumach. She was immediately put under treatment—laxative and mucilaginous drinks were ordered, and the gargle of the sumach used every half hour: in the course of a week or ten days the morbid action was changed, and the parts put on a healthy appearance. The operation was now performed, in which we removed the whole alveolar process of the affected side; the gums united most gently, the ulcer of the cheek healed up, and the patient recovered very rapidly, and has remained perfectly well.* The healthy disposition of the soft parts we attribute entirely to the use of the sumach, without which we should not have attempted the operation.

During the time the Dauphin County Alms-house Infirmary was under our charge, we had frequent opportunities of subjecting cases of protracted salivation, sloughed mouths, and ulcerated throats to experiment, which we uniformly found to yield to the infusion of the sumach, and the internal use of mucilaginous drinks and mush diet. The remedy, we think, may be extended with advantage to irritable ulcers of other parts. Its detergent and very soothing qualities, we believe, would contribute very much to healthy action, but we have no instances to support our opinion.

A short time since, we prescribed it in the case of our friend Dr. J. Ross Smith, of the northern liberties, who has suffered much from frequent returns of sore mouth and ulceration of the tongue, which he contracted while in attendance upon the convicts of the New York State Prison some years since, in which it has succeeded admirably well; and at our request he used it, with decided benefit, in a case of salivation threatening unpleasant symptoms, which we annex from his pen in a note to us.

"*April 25th,* 1829.—I was called to see Mrs. A. aged thirty, disease pleuritis, for which she was put under the ordinary treatment in such cases. Depletion having been carried as far as prudence dictated, on the 28th, she was ordered, (by our advice,) the following: ℞. sal. nitre, ʒj.; calomel, gr. xij.; ipecac, gr. viij. M. Div. in ch. No. viij. one to be taken every hour and half.

"*May 1st.*—Pulmonary symptoms all subsided, and she complained for the first of her mouth; from this to the 9th she suffered to an astonishing degree from the effects of the calomel upon the salivary glands. The pulse from 76 now run to 90, and the irritation was such as to cause a recurrence of her fits, as she styled them, which she had been subject to ever since the birth of her first child, now three years of age. A tremulous motion would commence in the head, amounting to a smart rigor, and gradually extend to the body and extremities, with the jaws firmly locked; they would last from ten to fifteen minutes, and then, as she expressed herself, go off at her hands and feet, leaving a slight perspiration: during its continuance the mind was perfectly rational, so much so as to enable her to assist herself, but her memory became greatly impaired. Considering my patient as suffering solely from the effects of calomel on an irritable system particularly obnoxious to the effects of this salt, increased by some disorder of the uterine organs, I resorted to opium, oleum ricini, sulphur, blisters behind the ears, and to the whole list of irritating, as I now consider them, gargles, and with the effect of rather increasing than diminishing the sufferings of my patient. Under these circumstances you were kind enough to visit the patient with me, and at your suggestion she was ordered to make use of the infusion of the inner bark of the root of the Rhus glabrum. She commenced on the evening of the 9th, and on the 10th I found my patient had passed comparatively a comfortable night, and the pain and salivation greatly relieved.

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* The operation was performed December, 1825.

"11*th.*—The pulse had fallen to 78, and on the 15th I discontinued my visits. It may be well to remark that I have since treated this patient for prolapsus uteri, according to Dewees's plan, with entire success."

An infusion of the inner bark of the root of the Rhus glabrum is a very mild mucilaginous refrigerant, and moderately astringent, very cooling and soothing to the irritated surface of the mouth and throat, and can be applied in any stage of disease and at any age. It acts by allaying irritation and obstructing excitement, sheathing the delicate surfaces, and healing abrasions.

There are seven species of the Rhus noticed in Pennsylvania; the Rhus typhinum, R. copallinum, R. glabrum, R. canadense, R. vernix, R. toxicodendron, and R. radicans. Some of these resemble each other so nearly that some botanists consider them as varieties rather than distinct species, and distinguish but five species. It is of much importance to discriminate accurately betwixt the species, as some of the other, and particularly the vernix, which resembles the glabrum very much, is very poisonous.

From Dr. Horsefield's dissertation, we cull the following distinguishing features of the *vernix* and *glabrum.* The *Rhus vernix,* which is known by the different names of poison tree, poison wood, varnish tree, poison ash, swamp sumach, and white sumach, is the largest of all our native species of Rhus; it grows in some instances to the height of twenty-five or thirty feet; its average height, however, may be estimated at ten or fifteen feet. It seldom exceeds five inches in diameter. It occurs near creeks or rivulets, in dark and shaded situations. The common trunk of the *Rhus vernix,* after arriving at the height of four or five feet, generally divides into two branches, which pursue for some distance a regular oblique course. The bark of the trunk is of a dark gray colour; in the upper branches the colour is lighter. The bark of the young trees is generally smooth, it becomes rough and furrowed as they advance in age. The leaves are compound: each leaf consists of four or five pair of pinnæ, (is five-feathered or winged,) which are placed opposite, on very short petioles, and are terminated by an odd one. Linnæus's specific character of the vernix is—*leaves feathered, most intire, annual, opaque, petiole intire, equal.* The flowers are arranged in small separate racemes, which form, at the termination of a long common peduncle, an uninterrupted panicle (of flowers) of considerable length. The peduncles always originate from the smaller branches, at the basis of a common petiole of the leaves, by which they are surrounded and supplied. The flowers are chiefly produced near the end of the branches, where they exist in great abundance; they are arranged in common with the leaves that support them, circularly around the lesser branches, forming, when the tree is in blossom, a beautiful globular cluster of flowers. They are very small and of a yellowish or herbaceous colour. The flowers are succeeded, on the female plants, by seeds which are arranged on their panicles, in the same manner as the blossoms; they somewhat resemble branches of small grapes. The seeds are not perfectly globular, but a little compressed. They are surrounded in their dry state by a thin, light green corticle covering, which before they become dry, contains a pulpy substance; and the seed contains a small yellow kernel of an oleaginous nature. The *Rhus glabrum*, common sumach, or smooth Pennsylvania sumach, grows in a loose, fertile soil; frequently upon vacant and uncultivated fields, and along the sides of roads and fences. It sometimes rises to the height of eight or ten feet; in many instances it does not exceed four or five. The trunk of the *Rhus glabrum* is seldom erect; after rising in an incurvated or oblique direction, to the height of two or three feet, it divides into several large branches. They are covered with a smooth, light gray or reddish bark, containing a viscid glossy yellow juice, which is not changed on exposure to the air. The leaves, like those of the Vernix, are compound: each leaf consists of nine or ten pair of leaflets or wings, which are placed opposite, and are terminated by an odd one. The Linnæan specific character is; *leaves feathered, sawed, lanced, naked on both sides.* The leaves, which in summer are of a deep red colour, change to a beautiful red, in autumn. The flowers are produced in large, erect, compound thryses, at the termination of the superior branches. They are of an herbaceous colour; and after they arrive at maturity, early in autumn, covered with a white tenacious powder, of an agreeable acid taste, and has been called, in various parts of Pennsylvania, *Indian salt.*[*]

Though alike in appearance, the therapeutic effects of these species are widely different; while the vernix and radicans produce great excitement and inflammation, the glabrum is considered innocent and harmless. Dr. Barton informs us,[†] that it "is excellent for removing warts, and also tetters." This shows, says he, "that even this species, which is generally deemed innocent, possesses some active quality." The *vernix*, *radicans*, and *toxicodendron*. have been extensively and very successfully used by MM. DUFRESNOY, PORE, GOUAN, in France, and VERDEYEN, VAN BAERLEM, and BURDACH of Germany, in paralysis, herpes, and consumption; and is said to exert a very active influence on the nervous system: great care therefore should be taken not to mistake the one for the other species.

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[*] An Experimental Dissertation on the *Rhus vernix, Rhus radicans, and Rhus glabrum*, published 1808.

[†] Collection for an Essay towards a Materia Medica of the United States

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ART. X. *On Phlegmasia Dolens.* By W. P. DEWEES, M. D. Adjunct Professor of Midwifery in the University of Pennsylvania.

WE have retained the name of phlegmasia dolens, (the phlegmasia alba dolens puerperasum of WHITE,) for a peculiar condition of the lower limb, because its pathology is still as unsettled as in the time of MAURICEAU, whom we believe was the first that gave any satisfactory account of it; for the description left by RODRIGUES A CASTRO, can scarcely be tortured, by any partiality for antiquity, into the disease of which we are about to treat, though Dr. HULL complacently inclines to the belief, that he was acquainted with it. And we doubt whether the disease of the apothecaries' wife, as described by WISEMAN, was really the disease in question, as it is but casually mentioned in his chapter upon "Abscesses and Corrosive Ulcers arising from Distempers of the Womb in Childbed," and what renders it especially doubtful, is, that he declares, matter formed in various places.

There cannot be a question however, that Mauriceau was well acquainted with this disease; as his description is still a pretty faithful one, in the main. By this author, and several others, the disease was attributed to some derangement of the lochia, which when not sufficient, was thrown upon the large nerves of the thigh, and thus created pain and swelling, &c. From the time of Mauriceau, to that of PUZOS, the disease appears to have been familiar to a number of practitioners, as MANNINGHAM, MESNARD, &c.

It was however found, after a time that the appearance of this disease did not obey any particular state or condition of the lochia; and that as it was very commonly accompanied by a diminution, or suppression of the milk, a new hypothesis was invented, and it was made to consist, of a metastasis of this fluid. Puzos with a great show of reason, has a prior claim to LEVRET, for this suggestion; as the latter himself refers to the former's "Mémoires sur les dépôts laiteux," and speaks approvingly of them. These great men were followed by Astruc, who treats expressly upon this subject. Sauvages, fully adopted these notions in his nosology, and treated of them under different genera and species.

Van Swieten, Lieutaud, Raulin, Selle, &c, all seem to have acknowledged the great influence of the milk upon the constitution; and each has treated of its metastasis.

Mr. White of Manchester, was the next to invent a theory of this disease; he made it consist of an obstruction, rupture, or a disordered condition of the lymphatics, and he was followed in this opinion by others. Mr. Trye pretty freely criticized the opinion of Mr. W. and said that, though he could not discover any grounds for supposing the trunks of the lymphatics to be ruptured in labour, "yet he could easily conceive, that the obstruction to the return of the lymph may commence in the primary inflammation of a trunk or trunks, and that probably this may be the case more frequently than he had hitherto discovered, or suspected it to be." Mr. Trye was followed by Dr. Hull, in a valuable and highly learned work upon this obscure, and debatable disease. Dr. H. says, "the *proximate cause* consists in an inflammatory affection, producing *suddenly* a considerable effusion of *serum* and *coagulating lymph* from the exhalents into the cellular membrane of the limb." Dr. Davies, of London, next offered new pathological veiws, of the proximate cause of phlegmasia dolens, and makes it consist in an inflammation of "one or more of the principal veins within and in the immediate neighbourhood of the pelvis, producing a thickening of their coats, the formation of false membranes on their internal surface, a gradual coagulation of their contents, and occasionally, a destructive suppuration of their whole texture; in consequence of which, the diameters of the cavities of these important vessels become diminished, sometimes so totally obstructed as to be rendered mechanically incompetent to carry forward into their corresponding trunks the venous blood brought to them by their inferior contributory branches."*

Thus, we have five different hypotheses, for phlegmasia dolens; of either of which it would be difficult to make a choice, if we consulted their value, either, in relation to the phenomena this disease presents, or to the pathological condition of the parts affected, as far as has yet been revealed, by dissection. On these several opinions, we shall pass a few remarks; and believing neither to be the true proximate cause, that it is right to give the arguments against each, that our reading has supplied us with, as well as those, that has suggested themselves to us from attentively having observed the phenomena of this painful affection.

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* Lond. Med. Chir. Trans. Vol. XII. p 426.

The two first opinions, (namely, that phlegmasia dolens is caused by some derangement of the lochia, or from a metastasis of the milk,) will scarcely require a remark; as subsequent observation, has abundantly proved, that neither has ever had the slightest agency in its production, even as a remote, or as an exciting cause. And further, were either or both, to be admitted as contributing to this affection, the pathological condition of the seat of the disease, as caused by them, would still remain unexplained.

Mr. White of Manchester, must be considered the first writer, who had attempted a pathological exposition of phlegmasia dolens; and much credit is due to his industry, and learning upon this subject, though we cannot yield to him the merit of having been satisfactory, or perhaps even clear. He declares this disease,

> "Is owing to the child's head pressing the vessel or vessels which arise from the lower extremities, against the brim of the pelvis during a labour pain, so as to stop the progress of the lymph; that the number of valves will effectually prevent it from regurgitating, and if the head continues any time in this situation, while the lymph is driven on through the valves by the peristaltic contraction of the coats of its vessels, by the great exertion of the muscles, and the strong vibration of the inguinal artery, though its coats (the lymphatics) should be allowed to be stronger than those of the blood-vessels, it must at last burst and shed its contents. When the orifice made in the lymphatic is heated, and the diameter of the tube is contracted, or totally closed by the cicatrix, the lymph is retained in the lymphatic vessels and glands of the limb, and the labia [labium] pudendi, and distends them to such a degree and so suddenly, as to occasion great pain and swelling, which always begin in the part next to that in which the obstruction is formed, and when the obstruction is in part or wholly relieved, or the lymph has found a fresh passage, the part next to it is consequently relieved." pp. 49, 50.
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> He adds, "If the above hypothesis be true, the predisponent cause may in all probability be a weakness in the coats of the lymphatics in such subjects only, as have these vessels formed into one principal trunk under Poupart's ligament." p. 55.

Objections to these conjectures of Mr. White will readily present themselves; for it supposes that some obstructing cause or pressure to be absolutely necessary. Now, if it be even admitted that the child's head affords this pressure, at the brim of the pelvis in some cases, it could not have done so in all the instances, in which this disease has appeared. For, 1st, this pressure cannot take place to the necessary extent, but in a very few instances; for it is notorious to accoucheurs, that for the most part, in a well-formed pelvis, the head may be even larger than it is usually found, and yet pass without difficulty. 2d. The portion of the brim of the pelvis at which, in ordinary circumstances, this pressure is found to exist, is not that at which the lymphatics would be subject to its influence; for as a general rule, it would be behind either of the acetabula. 3d. That no other part save the head, could effectually exert this pressure; yet it is agreed on all hands, that no position of the child yet discovered, is more efficient in its production than another. 4th. That a pressure so long continued and so effectual, "as to stop the progress of the lymph," and eventually to cause a lymphatic to burst, must necessarily produce upon the intervening parts, a gangrenous condition; yet this is a casualty, we have never heard of. 5th. Several circumstances connected with the history of this disease would still remain unaccounted for; as the occurrence of the disease in the opposite limb; and this not simultaneously, but after a considerable interval; and not until after, as a general rule, the first affection is yielding; to the pain and swelling first occurring in the calf of the leg, as it sometimes does; for if Mr. White's statement be true, that "*pain and swelling always begins in the part next to which the obstruction is formed,*" p. 51, the pain and swelling must primarily exist in this part of the limb; therefore is not indebted to pressure exerted on the brim of the pelvis for its existence.

The arguments just urged might appear sufficient for the purpose intended by them; but as several conclusive ones have been employed by Mr. Trye to the same end, we think we should not be rendering justice to this gentleman did we altogether omit them. He observes, that

> "No experiment has shown that the lymphatics can be torn, without doing equal violence to the other vessels of the part. That practical anatomists have ascertained that these vessels will bear a weight of quicksilver, equal in effect to a much greater force than is required to circulate the lymph towards the thoracic duct. That the force exerted by the child's head in its passage, cannot exceed that of the pad of a tourniquet on the arm or thigh. That if the trunk of a lymphatic be compressed, its contents are forced inwards towards the thoracic duct if no obstruction exist; in this case its sides are squeezed together, and will consequently occupy so little space, that in cannot be well ruptured at the compressed part. If a rupture then takes place, it must be below the compressed part—but no reason can be given for this taking place always in one place, namely, within Poupart's ligament, rather than in the leg or thigh."

Besides, we have known two instances of this complaint to follow abortions in the early months; and once in a premature delivery between the sixth and seventh month; in this instance, the child had been dead at least one month previously to its delivery. Again, my friend Dr. CHAPMAN informs me of a violent case having occurred in a patient in our Alms-house, labouring under cancer uteri. But above all it has happened to the arm of the male, as recorded by Dr. FERRIAR,* besides an instance, of the same kind, that fell under our own notice in 1788. A gentleman, pretty far advanced in life, received a severe contusion on the point of his shoulder, by the overturning of the mail coach. He however paid but little attention to it, and merely rested it in a sling, as it did not prevent his attention to business for several days; but at the end of this time, the arm became very painful, and swelled rapidly, considerable fever was excited, and the gentleman was obliged to keep his bed. The controul of the motions of the limb was entirely lost, as every attempt to move it was attended by exquisite torture. The character of the swelling was precisely that of the *milk leg*, to which it was compared at the moment, by my preceptor—that is, he declared, had the same affection befallen the leg of a lying-in woman, he would have called it a *milk leg*. After a tedious, and an active treatment of three months, symptoms of amendment showed themselves; but it required a long time to restore the limb to its former usefulness—indeed, from what we afterwards learnt, it never became as strong as the other.

This case is not unique; several instances of this kind are upon record; all of which, perhaps, are not entitled to the distinction. Dr. Ferriar's case is perhaps one, that could not be quoted as a genuine instance of phlegmasia dolens; nor do we regard the one related by LITTRE, under the care of LUMINIER, to be without exception, as there was well-marked red inflammation.† Yet that related by Dr. HEERMANS appears to have been a genuine instance of phlegmasia dolens in the male.‡

Besides, we are informed, that phlegmasia dolens, has happened to women not pregnant; of this we can only speak from the authority of others, for we have just said above, that this took place in a patient under the care of Dr. Chapman, in our Alms-house; and Dr. BECK mentions a case where it took place in a woman of fifty-two years of age.

Dr. MOORE, of Ipswich,§ makes a singular remark upon the opinions of Mr. White; the force of which we cannot perceive, though it purports to overthrow his doctrine at once. He says, "in refutation of Mr. White's opinion, I will state, that in no instance that has come to my knowledge, has the disease preceded parturition." Now, how this refutes Mr. W.'s opinion we cannot understand; for in no instance does Mr. W. require that parturition should always happen before this disease can be produced; and in our humble opinion, had Dr. Moore have known an instance of phlegmasia dolens preceding parturition* it would have told very much more against Mr. W.'s hypothesis, as the great agent in producing this disease, in Mr. White's opinion, would have been wanting; namely, pressure from the child's head during labour. But Dr. M. should have not attempted to pass his want of knowledge of such cases for more than it is worth; since many cases of the kind alluded to may have taken place, without his being apprised of them; for certainly it has happened, as stated above, that this disease has occurred to unimpregnated females. Now if this be so, we do not see by what law of pregnancy, the woman is secured against an attack.

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* Medical Histories, Vol. III. p. 92. By Dr. Ferriar.

† Medico-Chirurgical Review, for April, 1829.

‡ Dr. Francis' Memoir, p. 9.

§ New England Medical Journal, Vol. II. p. 229.

By the by, we may remark, that Dr. M. dismisses the hypotheses of Mr. Trye and Dr. Ferriar still more cavalierly, and with still greater brevity. Of the first he says, it "is mere supposition;" of the second, "in reply to Dr. Ferriar, I will adduce the fact, that phlegmasia dolens as frequently follows natural and easy labour, as difficult and laborious."

These assertions of Dr. Moore, purporting to be refutations, were to pave the way for the explanation which he offers immediately after, in the following terms.

> "After an attentive observation of cases, and a careful examination of the subject, I will humbly offer the following explanation as the most satisfactory to me."
>
> "During gestation, the abdominal muscles, their vessels, and integuments, are in a state of great preternatural distention; immediately after parturition, when the distending cause is removed, these parts powerfully contract in order to regain their natural dimensions. If this effort be unequally exerted, if it be suddenly excited by the application of cold, if the lymphatic vessels be overdistended at the time of plethora, or great debility subsists in the vessels themselves, an interruption and accumulation of the fluid ensues; the great and long accumulation of which, acting as an extraneous and offending cause, will occasion inflammation. In persons of a plethoric and irritable habit, inflammation may quickly supervene; while on the other hand, in a person of a contrary habit, it may be more tardy in its progress." p. 230.

We would now ask, if ever hypothesis was more heavily laden with conjecture, and supposition, than this—it has not even the merit of ingenuity, much less an imposing probability to reconcile its meager pretensions. The initial postulate is not founded in fact, for we cannot look upon the distention imposed upon "the abdominal muscles, their vessels, and integuments," as "preternatural," since, in being put upon the stretch by pregnancy, they are but performing one of the offices for which they were designed. His second is no better grounded; for, after parturition has removed the distention, "the abdominal muscles, their vessels, and integuments," do not "powerfully contract in order to regain their natural dimensions;" for this is performed silently, and gradually, and requires for its completion many days. We have just shown how reluctant Dr. M. is to permit either Mr. Trye, or Dr. Ferriar, to conjecture, or to suppose; yet, he says himself, in the attempt to make out his explanation, "*if* this effort," &c.; "*if* it be suddenly," &c.; *if* the lymphatic vessels," &c.; such and such things will happen. That is, we shall have inflammation from an accumulation of lymph in the lymphatic vessels; and in what essential point does this "explanation" differ from that of Mr. White, or Mr. Trye? in none that we can see, if we except the agent by which the interruption to the circulation of the lymph is effected—in one instance it is the head of the child; in the other it is *cold* and *debility*.

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* Puzos relates two instances of this kind; one took place at the 4th, and the other at the 7th month of utero-gestation. And we have seen two instances in which it followed premature delivery.

We should not have thought it necessary to notice this "explanation" in an especial manner, did not the doctrine it inculcates lead to a mischievous, and reprehensible plan of treatment; for the doctor observes—

> "In the ordinary mode of treatment, much time is lost in the inefficacious use of diuretics; and much mischief and pain produced by the application of blisters, and other stimulating remedies." "From the view here taken of the subject, I am fully disposed to regard it as a local disease, and decidedly recommend the early application of a large emollient poultice, which, by its relaxing and resolving power," (recollect the doctor's opinion of the cause of the disease, is, debility and over-distention,) "will, in a great majority of cases," (has he ever seen a sufficient number to determine this important point? the doctor only mentions two cases, and neither of which, was the disease in question,) "prevent the formation of a distressing and tedious disease. And when it does not produce this most desirable effect, I should recommend its continuance, with an intention of producing *early suppuration, which I think next to resolution, the most speedy and safe termination of the disease.*" p. 231.

Was ever a disease less understood; or a more preposterous remedy, ever proposed! The continued application of an emollient poultice is every thing that is necessary for the relief of a milk leg!

We have good grounds for believing Dr. Moore had never seen a case of phlegmasia dolens, if we take the two cases he details as specimens. In the first case, the patient complained of a pain in the right hip and back; rigors and watchfulness; *a rigidity and soreness of the abdominal muscles;* pain in moving the limb; *the pulse a little increased, slight thirst, and perfectly clean tongue.* For this state of things, antimonials, cathartics, and fomentations were prescribed. These proved ineffectual; bark, guaiacum, and a continued blister to the thigh were employed.

> "This course evidently increased the local affection. *The upper part of the thigh, the inguinal glands, and right iliac region, become more tumefied, which gradually extended to the hypogastrium and labium pudendi.*"
>
> "In the early stages of the swelling it appeared in *ridges* and *bunches,* occasionally assuming a *livid,* and at other times a *purple hue.*"

It became more uniformly diffused, tender, hotter than natural, shining, but not much discoloured. The fever kept pace with the local affection; the pulse was small and very frequent. The swelling increased. "With an intention of *rousing the action of the absorbents,* a *volatile stimulating liniment* was applied, and in turn hot vinegar; but these had no better effect than the blistering!!"

Digitalis was now administered; this increased the debility; *the inflammatory appearances became more evident; the pain, heat, soreness, and redness increased, until a discharge took place from a ruptured lymphatic* in her side, about an inch from the inferior spinous process of the ilium. p. 228.

The second case is still farther removed than the first, from being an instance of phlegmasia dolens. This occurred in a person of robust constitution; it supervened on natural labour. On the second day after the delivery, the patient experienced a great rigidity of the abdominal muscles, which increased in tenderness, and presented an appearance of "ridges and bunches;" the constitutional symptoms high; these increased until *suppuration took place from an "opening a little below the navel."*

We have italicized such parts of these histories, as show at once, that they were not instances of plegmasia dolens; and also such, that have excited our wonder in regard to treatment. If the cases just related, and others, that we shall have occasion to mention presently, be received as genuine instances of phlegmasia dolens, the pathology of this disease will remain unsettled to the end of time.

We have already cursorily mentioned the opinion of Mr. Trye, of the proximate cause of phlegmasia dolens; we shall now develope it more in detail. He says, p. 70—

> "I have considered the *proximate cause* of the swelling to be seated in the *lymphatic glands.* I will not contend that it must be so universally, because

there is a probability, that the original seat of obstruction and inflammation may, in some instances, be in the principal trunks of the absorbents within the pelvis, independent of, and abstracted from the iliac glands; in which case the inflammation may be continued along the absorbent vessels downwards; that is, towards the labia pudendi, leg, &c. as well as upwards, or towards the thoracic duct."

Dr. Ferriar is also mentioned as an inventor of a theory for phlegmasia dolens; but he does not appear to be entitled to this claim, since he has only adopted the opinion of Mr. Trye upon this subject. And were we even to admit he had not seen Mr. T.'s work, he must at least have been familiar with the opinions of Drs. Denman and Latham. The lectures of the former he most probably attended.

We shall make no observations upon the opinions of Mr. Trye and Dr. Ferriar, until we have noticed the hypothesis of Dr. Hull, which we shall now give in his own words. He states, that—

> "From an attentive consideration of the whole of the phenomena observable in this disease, and of its remote causes and cure, no doubt remains in my mind, that the proximate cause consists in an inflammatory affection, producing suddenly a considerable effusion of serum and coagulating lymph from the exhalents into the cellular membrane of the limb." "The seat of the inflammation I believe to be in the muscles, cellular membrane, and inferior surface of the cutis. In some cases, perhaps the inflammation may be communicated from these parts to the large *blood-vessels, nerves,* and *lymphatic vessels,* and *glands* imbedded in them."

We have united the hypotheses of Mr. Trye, Dr. Ferriar, and Dr. Hull, because they are essentially one and the same; namely, that the proximate cause is an inflammation of the lymphatics and glands of the groin; though as a whole, Dr. Hull's assumes a much broader ground; so much so indeed, that Dr. Davies styles it with much point, "a capacious theory."

The objections which present themselves to these explanations, are, first, their incompatibility with one especial phenomenon of the disease, namely, the *shining white* appearance of the limb throughout the whole course of the disease; and this so notoriously so, as to have it as one of its genuine characters. In all instances of inflammation of either, muscle, skin, lymphatic,* or blood-vessels, redness is a never-failing attendant, as is well known to all who are familiar with disease. Yet this does not happen in phlegmasia dolens, notwithstanding the numerous tissues Dr. Hull involves in the mischief. 2d. That were all these tissues in a state of inflammation, this inflammation would manifest itself by the ordinary phenomena of this affection; namely, heat, *redness*, swelling, pain; yet we find *redness* always wanting in phlegmasia dolens, when this disease is pure and uncomplicated. If muscle be inflamed, redness is sure to be present; if the skin, the same thing occurs; if the trunks of lymphatics, (absorbents,) be the seat, we have frequent opportunities to witness that they become red; and when the lymphatic glands are in this condition, redness notoriously attends. And though Dr. Hull does not suppose, that all these parts are simultaneously affected, but successively, yet it alters not the fact, that in phlegmasia dolens redness is always absent during the whole course of the disease.

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* In the time of Dr. Hull, the term "lymphatics" was understood to mean the lymphatic absorbents; the researches of Bichat had not then made it necessary to distinguish this set of vessels, and those whose office it is to convey the lymph, being either the termination of arteries, or the beginnings of veins. And we beg the reader to keep in mind, that where "lymphatics" are mentioned in the quotations of either Mr. White, Mr. Trye, Drs. Hull, Ferriar, or Moore, that the lymphatic absorbents are to be understood.

3d. Besides, this progressive extension of inflammation cannot well be sustained, as the rapidity of the disease is such sometimes, as to involve the whole limb in the course of a very few hours; whereas the transmission of inflammation by contact even, is sure to be much slower; yet it would not fail to betray its progress by all the phenomena of inflammation, were it to exist in such parts.

4th. When the lymphatic glands become inflamed by the absorption of some acrid substance, or specific poison, the venereal poison for instance, they not only become red themselves, but the lymphatics even that convey the poison, can be distinctly traced in their course, by the vivid red that marks their inflamed coats.

5th. The ordinary inflammation of the several parts declared to be involved in phlegmasia dolens, moreover, do not thus suddenly effuse serum; of this, proofs, in the progress of this affection, present themselves every day, as in rheumatism, wounds, contusions, the insertion of poisons, &c.

6th. When the lymphatics are inflamed, together with their glands, it is acknowledged by Dr. Ferriar himself, that "the vessel can be distinctly traced in its course by its hardness and enlargement, and frequently by a *slight inflammation* of the superincumbent skin, forming *a red or purple streak*, and extending with the affection of the vessel."*

7th. We do not agree with Dr. Ferriar in the assertion, that "the violent pressure on the internal iliacs, and the accompanying veins and nerves, which takes place during delivery, must undoubtedly be considered as a powerful occasional cause of *lymphatic inflammation.*" p. 120. Now, if this were true, phlegmasia dolens would be of much more frequent occurrence than it is found to be; since this pressure is common to all labours, yet the disease in question is one of very rare occurrence.

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* Med. Hist. Vol. III. p. 95.

8th. Because in phlegmasia dolens, one of its inseparable characters is the exquisite sensibility of the *whole limb;* so much so in most instances, that the patient cannot bear the slightest pressure, or the slightest motion, yet Dr. Ferriar informs us, that "the pain in *lymphatic inflammation* is referred to the enlarged *glands*, and is *not remarkably increased by motion; there is more stiffness than actual pain in the whole limb.*" p. 102.

9th. Because, in the twelve or fourteen cases of exquisitely formed phlegmasia dolens, that we have seen, we never were able to trace the "inflamed lymphatics," or to feel the "enlarged conglobate glands;" yet, both of these circumstances are declared to be constantly present, by those who espouse the pathology under consideration.*

10th. Because, Dr. F. furnishes a case himself, which disproves his own explanation, viz.:—

> "Jane Waters, aged twenty-five, was delivered by an accoucheur, of her second child, December 26th, 1797, after being four days in labour. During delivery she lay upon her left side. December 27th, she was affected with pain and swelling of the left knee, which descended to the leg and foot of the same side. On the 28th of December the swelling began to rise from the left knee and to affect the thigh. It extended up to the left groin and labia pudendi. I saw her for the first time on the 3d of January, 1798. I found the swelling tense, uniform, not discoloured; that there was a great sensation of rigidity in the limb, and that it was *extremely painful on being touched or moved.* She felt *exquisite pain in the ham,* where I could perceive the lymphatics *a little enlarged. The glands of the groin were not affected.*" p. 127.

In this case there was an exquisitely formed phlegmasia dolens; for it was attended by all the essential characters of the disease; the limb was exquisitely tender to the touch; the swelling was uniform and elastic; it was not discoloured; the glands of the groin were not affected, and the lymphatics in the ham could be perceived to be "a little enlarged." Here then was a case of genuine milk leg, without inflamed "lymphatics" or "conglobate glands." We think we have said enough to prove that this pathology is not well founded; and that, if inflamed lymphatics, or enlarged glands be present, that they are the consequences, and not the cause of the disease called phlegmasia dolens.

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* Dr. Hull declares the same inability; he says, "I have never met with either enlargement or inflammation of the lymphatics in any stage of the complaint; I am therefore convinced that this is a rare occurrence, and by no means essential to the disease."—*Essay on Phlegmasia Dolens,* p. 116. It will therefore be perceived that our observations only apply to Dr. Hull, as far as he admits the lymphatics to be involved.

The next hypothesis in order, and it is the last with which we are acquainted, is one of late date; it is by Dr. David Davis, a teacher and practitioner of considerable celebrity in London.

Dr. Davis attempts to prove, that phlegmasia dolens is the consequence of an inflammation of one or more large veins; ending in the production of an extraneous membrane or other obstructions, within their cavities; and thus offering remoræ, to the returning blood from the extremity.

This view of the subject, from its supposed truth, has gained much more notoriety, than can be sustained by facts; though supported by the powerful aid of VELPEAU; and we may add that of BOUILLAUD and RIBES. When we say this, we would not wish to be understood as implying the slightest disbelief of the truth of Dr. Davis's statement; on the contrary, we are fully persuaded that neither he nor the gentlemen who, both directly and indirectly, support his doctrine, have set down nothing that they did not see—the only question then is, were the dissections of these gentlemen cases of phlegmasia dolens? this is the point at issue—whether phlebitis and phlegmasia dolens are identical; or in other words, are the cases related as cases of the latter, any other than instances of the former?

Before we proceed further in the examination of this question, it will be proper to determine the absolute character of phlegmasia dolens from the best accredited *practitioners;* for to them alone should the appeal be made. And perhaps one of the older writers of this kind, will be the safest guide upon this occasion. CALLISEN has summed up the characters of this disease most happily in a very few words, making allowance for the introduction of one of its supposed causes in his time, namely, a metastisis of milk. "Œdema puerperarum, aliis lacteum *est* tumor elasticus, albescens, renitens, calidus, dolens, foveam impressi digiti haud retinens, puerperis haud infrequenter, gravidis rarissime infestus." He has, however, omitted a very material feature of the disease, namely, fever; for, as far as we have seen, this condition of the system has always been present, and sometimes to an alarming degree.

The essential characters then of phlegmasia dolens may briefly be stated to consist of the following strongly marked characters. 1st. Fever always to a greater or less degree. 2d. Pain generally commencing in the hip, groin, and sometimes the back. 3d. Swelling commencing at the seat of pain, and proceeding with more or less rapidity down the whole limb. 4th. The swelling elastic, not retaining the impression of the finger. 5th. The whole swoln part white, even more so than natural in some instances, but never red, when uncomplicated. 6th. The whole limb exquisitely sensible to the touch. 7th. Total inability to move the limb, and action always creating great suffering. 8th. The temperature of the whole affected part, much above the natural temperature. 9th. The labium pudendi of the diseased side, almost always participates in the swelling, but never extending to the other labium, unless the other limb be also affected. 10th. After the first leg begins to improve, or is perhaps nearly well, the opposite leg runs through a similar course, and sometimes with an aggravation of symptoms. 11th. That the limb thus affected, rarely suppurates. 12th. That this disease is rarely attended by danger. 13th. That after the more violent stage of inflammation is abated, which generally happens, under proper treatment, about the sixth or eighth day, that the swelling abates its elastic character, and takes on that of a common œdema. 14th. The milk usually diminishes, and sometimes disappears.

We have been thus particular, yet we trust strictly faithful, in enumerating the essential characters of phlegmasia dolens, that the coincidences and discrepancies between it and phlebitis, may be more readily subjected to comparison.

Symptoms and general character of Phlebitis.—In giving an analysis of the symptoms of phlebitis, we have chosen the one condensed in the Medico-Chirurgical Review, Vol. IV. p. 509, from Recherches Cliniques pour servir à l'histoire de la Phlebite; par M. J. Bouillaud, M. D. Revue Méd. Avril et Juin, 1825; and from Exposé succinct des Recherches faites sur la Phlebite; par M. F. Ribes, M. D. Revue Méd. Juillet, 1825. We have done this in preference to other authorities, because they are the latest who have written on this subject, though we have no evidence that they consider this affection constitutes phlegmasia dolens. We shall give the English version, as contained in the above named Review. First, of Dr. Bouillaud.

"*Symptoms.*—1. The symptoms of *inflammation in the trunk of a superficial or external vein are easily recognised.* The member swells, becomes hot, painful, or is even the seat of *phlegmonous erysipelas.* The *vessel itself feels tense, hard, knotty, or like a cord. Abscesses* not unfrequently form *in the course of the vein.* The pain, our author thinks, is more dependant on an affection of the neighbouring nerves, than on inflammation of the vein itself. *Œdema of the limbs is a very common attendant on phlebitis of one or more of the principal veins,* and evidently arises from the mechanical obstruction to the return of the blood—the veins being now acknowledged to be the principal conductors of the serous exhalations, (see note * to p. 74,) that take place into the cellular tissue. Such are the signs of local phlebitis.

"2. When the inflammation extends to the whole, or to a great portion of that vast membrane which lines the internal surface of the venous system, we constantly find that a violent fever is lighted up. Among many of our patients, the fever presented all those characters which are attributed to what are called *putrid, adynamic, or typhoid fevers;* and indeed the term *putrid* is perfectly applicable, since after, nay *before* death, there are unequivocal signs of decomposition, or a kind of putrid fermentation of the fluids."

Second. Mr. Ribes says, "*The veins are very frequently inflamed,* and this affection is a *very dangerous one.*" (Yet phlegmasia dolens is a rare disease, and is very seldom dangerous.) "In incipient phlebitis, the patient experiences a slight *pain in the track of the veins affected.* These vessels *swell and become prominent, presenting a light bluish colour, and subsequently a brownish pale hue.* The circulation *ceases in the vessel,* and the blood becomes more or less *decomposed.* If the circulation should be re-established, the contents of the vein are carried into the current of the circulation, and dangerous consequences may ensue." p. 512. "Phlebitis is a *serious malady,* and is often *quickly mortal.*" *Ibid.*

We have thus brought into opposition the characteristic symptoms of phlegmasia dolens, and phlebitis, which we now submit to the reader's candour to determine the strength of their analogy, or rather how far they are entitled to absolute identity. Let him run his eye over such parts of the description and consequences of phlebitis as are emphasized, and compare them with the general history of phlegmasia dolens, and he will at once, we are certain, perceive their discrepancies, and determine their entire want of sameness.

But lest it be thought that we have drawn our conclusions from premises not attempted to be sustained by Dr. Davis, we will produce in a very short compass all the symptoms detailed in his histories, that he may speak for himself.

"Case I.—Caroline Dunn, æt. 21; weak constitution; delivered on the 7th of February; severe labour; some hæmorrhage after delivery; placenta removed artificially. 8th. Pulse 90; tongue white and moist; no pain in the abdomen from pressure; soreness in vagina. On the 13th, slight fever; pulse full and quick; costive; tongue white and dry; the *labia pudendi inflamed and œdematous*; some head-ache; respiration difficult; discharge from vagina resembling cream." 17th, better; 21st, much better; 22d, still better; 26th, worse; leg and thigh much swollen; pain in the groin; no signs of inflammation; no pitting on pressure; 28th, no better; leg pitted on pressure; March 3d, total insensibility; limb equally swollen; 4th, died.

We shall introduce a part of the dissection, as performed by Mr. Lawrence, "which is a sufficient guarantee for its correctness." Med. Chir. Review, p. 381.

Dissection.—"The left lower extremity presented an uniform œdematous enlargement, without any external discoloration, from the hip to the foot. This was found, on further examination, to proceed from the ordinary anasarcous effusion into the cellular membrane." The inguinal glands a little enlarged, as they usually are in a dropsical limb, but without any sign of inflammation. The femoral, external iliac, common iliac firmly plugged, apparently by a coagulum of blood. The other veins thickened, except the saphena and branches, which were healthy. That the substances occupying the cavities of the vein, were the product of inflammation.

We cannot do better than present the observations on this case contained in a review of Dr. Davis's work on phlegmasia dolens.

"We take the liberty of differing from Dr. D. on the identity of the case described with that of real phlegmasia dolens. We ground our first doubt on the *fatal issue* of the case, which is contrary to the general experience of the profession hitherto; for it must be recollected that Zinn's patient died of asthma, and not of phlegmasia dolens. If then there are very few cases on record where phlegmasia dolens in itself proved fatal, we have at least grounds for supposing, (we do not say it amounts to proof,) either that Dr. Davis's case was *not* phlegmasia dolens, or that its proximate cause was different from the proximate cause of phlegmasia dolens in general." p. 382. Med. Chir. Rev. Vol. V. No. 18. The reviewer asks in a note, "Is it likely that so serious and generally so fatal a disease as an inflammation of the internal coat of veins, under other circumstances, should be almost invariably devoid of danger in phlegmasia dolens?" *Ibid.*

"Our main doubt, however," continues the reviewer, "is grounded on the anatomical, or rather, the pathological difference between Dr. Davis's case, and those described by authors. We have Mr. Lawrence's authority that the enlargement of the limb proceeded from *ordinary anasarcous effusion* into the cellular substance. Does this state harmonize with the description of phlegmasia dolens as given by authors, or as seen by practitioners? It is contradistinguished, by all the writers we have perused, from *anasarcous infiltration*, (and certainly by our own observation in at least four or five cases,) by the tense, or hard, or at all events, elastic swelling of the limb—*not pitting* on pressure." p. 382.

Dr. Bateman runs the following parallel between the two diseases:—

"The swelling is general and equal over the whole limb; it is much harder and firmer than in anasarca, in every stage of the disorder; it is not so cold, in any state of the disease, as in the dropsical swelling, nor so much diminished by the horizontal position; neither does it *pit* when pressed upon by the finger, nor does any water issue from it when it is punctured by means of a lancet."—*Rees's Cyclopædia*, Vol. 28. "When these descriptions are compared with Mr. Lawrence's dissection, we think every unprejudiced mind will agree with us that Dr. Davis's case was of a character wholly different from genuine phlegmasia dolens." p. 383.

"Case II. A lady of a sanguineous, irritable temperament, died suddenly in the midst of apparently high and perfect health, on the 20th of September, 1819, six weeks after confinement. She was seized with peritoneal inflammation the day after delivery, which yielded to active measures. Ten days after this she complained of *a deep-seated pain in the groin, and along the great vessels.* Dr. D. found the *limb swelled, and very painful,* but by leeches and blisters, this new inflammation was speedily reduced, and in a week, the swelling had entirely subsided, the patient having recovered the perfect use of the limb. From this period she convalesced rapidly and satisfactorily, but died, as above stated, in the midst of apparent health."

In what possible respect can this case be looked upon as a case of phlegmasia dolens? Is there a single coincidence between the two diseases? The only circumstances on which even a remote analogy can be based, is "*a deep-seated pain in the groin,*" and that "*the limb was considerably swelled, and exquisitely painful.*" But will such conditions of a limb, constitute phlegmasia dolens?

"Case III. This is a case communicated by Dr. Davis's friend, Mr. Oldknow. A woman was delivered, by an easy labour, in September, 1820. She did well for about three weeks. She was then attacked by a violent diarrhœa, for which she took astringents. Fever continued. On the thirtieth day after delivery the diarrhœa returned, and 'the left lower extremity became *swollen and painful,* with considerable increase of fever.' Four days afterwards she died." p. 435.

In this case, the only pretence for calling this a case of phlegmasia dolens, during the life of the patient, was the existence "of swollen and painful lower extremity;" and no proof of its having been a case of this kind, is adduced by the examination after death. The whole attention of the operator appears to have been occupied in the examination of the blood vessels; "the femoral vein and iliac veins were much enlarged, and contained adherent layers of coagulated blood. The same appearances, but in a lesser degree, were observed in the cava as far as the entrance of the renal veins. The coats of the veins were highly inflamed, and intimately attached to the surrounding parts. The absorbents and glands were slightly enlarged." These morbid changes may perhaps with propriety entitle this case to stand with those of phlebitis; but it has no possible right to be ranked with those of phlegmasia dolens.

The sudden death of this patient, we conceive, will effectually prevent this case from being acknowledged as one of phlegmasia dolens,* for we believe from what we have seen and read of this disease, that it is the first instance, if it be one, that has terminated so suddenly in death. Indeed, this termination is so confessedly rare, that phlegmasia dolens has never been looked upon as a disease of danger,* though one for a time of great suffering, and almost always one of tedious convalescence.

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* It is true, that in the case related by Puzos, the patient died on the fifth day; but she appears rather to have "died of the doctor," than of phlegmasia dolens. He relates another, that took place in the fourth month of pregnancy, and which proved fatal on the ninth day.

Case IV. A lady of a delicate constitution, an irritable habit, was delivered on the 2d of July, 1821. She was doing well until the seventh day; on this day she was exposed to cold, and was seized with a rigor. During the forming of the hot stage, she felt a pain in her left side, which increased rapidly, and for which she was bled without much relief. She was afterwards bled, leeched, and blistered. The affection of the chest was relieved, but fever continued. In the evening of the 9th "unequivocal symptoms of phlegmasia dolens declared themselves." She died on the 23d of the same month.

"On dissection, there was effusion and inflammation in the chest, 'the left lower extremity, from the hip to the toe, was considerably, but not greatly enlarged, and there was an evident enlargement of the labium pudendi.' The iliac veins on both sides were unusually turgid with blood. When the left was opened, it was found to contain a firm coagulum of blood, not adherent to the vessel at that place. Higher up, however, in the common iliac portion, the coagulum was adherent to the internal surface of the vessel. The left internal iliac was greatly inflamed, and the diameter so much contracted as to be almost impervious."

"In the above case we have to regret that nothing is said of the state of the limb from the 9th of July, when the 'unequivocal symptoms of phlegmasia dolens commenced,' till the patient's death. In the dissection, again, nothing is said of the pathological condition of the limb. The whole attention is concentrated on the vessels. Now it ought to have been Dr. Davis's chief and main object to prove, in all those cases, that the disease was really phlegmasia dolens, by an accurate description of the symptoms and state of the limb, and then to have traced the *cause* if he could. But it is evident that the first and main object is almost totally neglected—or where it is adverted to, as in Mr. Lawrence's dissection, it makes against the question—and therefore we do not consider ourselves bound to subscribe to our author's etiology, without having the necessary documents respecting the symptoms and dissections of the cases."†

We cannot, however, hesitate to believe, that the swelling spoken of was produced by the inflammation and obstructions discovered by dissection, as Ribes tells us it is one of the common symptoms of phlebitis; but we must deny that, that swelling, and the swelling attending phlegmasia dolens, are of one and the same kind, as this author expressly calls it, "œdematous."

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* Dr. Francis relates a case on the authority of Dr. Mann of Boston, in which death took place from sphacelus, in consequence of the limb being punctured with a view to draw off the water supposed to be present.

† Med. Chir. Rev. p. 385.

From all the facts adduced by Dr. Davis in support of his pathology of phlegmasia dolens, sufficient evidence is not afforded, that "the proximate cause of this disease is a violent inflammation of one or more of the principal veins within and in the immediate neighbourhood of the pelvis," &c. Nor in our opinion is this pathology sustained by the cases related by Velpeau, purporting to illustrate the cause of this disease, though they coincide with the observations of Dr. Davis.

Dr. Velpeau has drawn the same conclusions as regards the proximate cause of phlegmasia dolens as Dr. Davis, though not aware he had been anticipated in this, by the latter gentleman. We will briefly relate his cases—that is, we will mention every circumstance which may bear upon the question.

Case I. Valette, eighteen years old, had a tedious labour; on the third day she was much affected by some melancholy tidings. She now laboured under an acute pneumonic affection. Eleven days after delivery, she had chills and fever, pain in the groins, hypochondria, and left side of the pelvis. On the forty-first day, the left leg was found to be swelled, with pain in the hip and groin, and ultimately in the whole limb. "The whole extremity *œdematous.*" Pressure give pain only in the groin. On the sixtieth day she died.

Dissection. "When the left extremity was cut into, it was found much infiltrated in the cellular tissue. The lymphatic glands of the groin were much swelled and red—the muscles small and pale"—crural vein red externally, and its cellular coat thickened. This was the case in all its deep-seated branches. Purulent matter was found in these veins, and pus in the cava, and purulent deposition in other places. Can any one recognise phlegmasia dolens in the history of this case, or in the details of the dissection? There was a swelled leg it is true—but it is expressly declared to be "œdematous," and this is the only resemblance.

Case II. Damiens, thirty-five years of age. She had a quick delivery. During the three first days nothing remarkable occurred. Fourth, fever, and deep-seated pain in the pelvis. On the thirteenth day the lower extremities are much swelled and painful, especially the left. Fifteenth, breathing affected, difficulty in passing water, diarrhœa. Twentieth, the lower extremities more swelled and *red*, (enflées et rouges,) belly swelled and painful. Twenty-sixth day, died. In the dissection there was nothing to justify the opinion that this was a case of phlegmasia dolens; or perhaps that it was a case of phlebitis.

Case III. Has even less claim to the title assumed for it, than the preceding—the only possible circumstance to rest such an opinion upon is, that "there were pains in the *upper* and lower extremities—the latter *beginning to show œdema.*"

Such are the kind of cases which of late have been foisted upon the medical public, for instances of phlegmasia dolens; than which, nothing can be less similar. Dr. Davis has evaded all the difficulties that might attach to a regular history of the appearances of the limb, by declaring in some instances, that "*to-day unequivocal signs of phlegmasia dolens appeared;*" we must therefore take his word for the truth of the observation; not, however, that we woúld insinuate, that he would in the slightest degree misrepresent the appearances which led him to this conclusion, but that he was satisfied with symptoms which we think did not constitute the disease. The cases of Bouillaud and Ribes, are precisely of the same character as regards their relation to phlegmasia dolens, though they may be looked upon as instances of phlebitis. But to Velpeau, we cannot even accord this acknowledgment

We find also a case recorded in the Medico-Chirurgical Review, for 1825, Vol. III., New Series, p. 540, which purports to be a case of phlegmasia dolens, that required the amputation of the leg in consequence of an apprehended sphacelus. The only circumstance on which the title of the case is founded, is that "*the limb was* NOT *evidently swelled, but there was a good deal of tenderness in and about the ham.*" But unfortunately for Mr. Davies, the narrator of this case, he had just before informed us, that "*the limb became instantly paralyzed, from below the knee to the toes,*" by a sudden metastasis of "excruciating pain from the left loin and hip, which suddenly flew down to the leg and foot." On dissection of the amputated limb, "the veins were found completely distended with firmly coagulated blood; their coats were thickened, and their inner surfaces very much inflamed." In consequence of which, Mr. Davies declares, that "the morbid appearances tend to confirm the truth of Dr. Davis' views of the pathology of phlegmasia dolens." To which we might perhaps agree, if there had been a single symptom of this disease present; or if Dr. Davis had proved, that phlebitis, and phlegmasia dolens, were one and the same disease; or even, if in phlegmasia dolens, that phlebitis was constantly present. This latter, however, we confess, would have been a most difficult task, as the rare fatality of phlegmasia dolens, leaves but very scanty chances to do so; while phlebitis is very frequently fatal

Having thus reviewed the several opinions which have been offered on the proximate cause of phlegmasia dolens, we are every way assured, that they will appear to the greater part of medical practitioners, as unsatisfactory as they have to us; and, that they satisfactorily prove, that this interesting subject for pathological research, remains still unsettled. We have upon this subject but two suggestions to make; namely—1st, be the affection seated in whatever tissue it may, its character is highly inflammatory; 2d, that in our opinion, that this inflammation occupies exclusively the white lymphatic vessels of the cellular membrane of the several textures of the limb; for we are every way satisfied that redness is not essential to inflammation, as we have elsewhere declared. We therefore agree in part with Dr. Hull, since he admits among the tissues he particularizes as being involved in this disease, the cellular membrane as one. And in support of the opinion we have adopted respecting inflammation, we think we cannot do better than to employ his arguments against redness being a *sine qua non* to its existence.

> "Should it be objected to this theory that there is no redness of the external surface of the cutis, my answer is, that redness, though a general attendant of inflammation in the human body, does not constitute inflammation, nor is it a circumstance essentially necessary to inflammation. The cheek in blushing for example, presents redness, and increase of heat to the eye and touch; but there is no pain, consequently no inflammation. The cornea on the other hand, when we cannot trace a single vessel carrying red blood beyond its margin, is frequently affected with inflammation, there is pain, heat, &c., and small abscesses, or ulcers, or depositions of coagulable lymph, commonly called specks or pearls, take place in it. Animals which have no red blood in any part of their system, are not exempt from inflammation. And the less acute kinds of inflammation, which take place in the membranes of the brain, the pleura, peritonæum, tunica vaginalis, testes, &c., are not always characterized by an evident redness, especially when an extravasation of coagulating lymph, or a large effusion of serosity soon happens and moderates them, as in peritonitis *conjunctiva*, and in apoplexia *hydrocephalica* Culleni, and the acute stages of hydrothorax, ascites, and hydrocele. Hence it may happen, that when the symptoms of a disease induce the attending physician to consider it as a phlegmasia, dissection may be supposed to show, that he is mistaken as to the nature of the complaint, if redness be admitted as an essential mark, a *sine qua non* of inflammation."*

What the exciting causes may be of this disease, we are not exactly prepared to say, as it takes place in two diametrically opposite conditions of the system; namely, that of repletion, and of exhaustion. Thus, we have seen it in two highly plethoric females; with one the labour was rapid and easy; in the other it was rather tedious, and very painful. In several other, we have witnessed it to follow severe and extensive uterine hæmorrhages; and were we to decide from our own experience as to the frequency of its occurrence after any one condition of the system, we should say, it was most apt to follow severe uterine losses of blood, than from any other single cause.

Method of Cure.—However writers may disagree as regards the particular structure occupied by this disease, they are unanimous with respect to the nature of it—they all maintain it to be inflammatory. About this there can be no mistake; as all its symptoms and habits declare this condition of the tissue to be present. We have fever with a highly active pulse; a hot dry skin; acute pain and swelling, which is sometimes very hot; great, nay excessive soreness of the limb to the touch; great thirst sometimes; white tongue, &c. in a word, every thing that betrays an active local inflammation.

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* Hull on Phlegmasia Dolens, p. 209.

Blood-letting and leeching.—The means of cure consist in depletion from the circulating system, both general and local—we therefore abstract blood from the arm to the full extent the system will bear, at the time; and this must be repeated, if the fever be but little or none abated, and the pain be undiminished. So soon as the force of the pulse is diminished, if the fever continue, leeches should be applied to the diseased limb, in such number as shall secure the loss of five or six ounces of blood. Our practice in the use of leeches, is to have them pretty much dispersed over the surface of the limb, that their bites may not be too near each other; as they sometimes leave troublesome sores, when crowded together where the skin is much distended. The leeching may be repeated in a day or two, provided the pain, heat, and elastic feel of the swelling remain severe or unabated. We however never apply the leeches, until arterial force is weakened by bleeding from the arm; as the relief they afford, is by no means so great until this has taken place. In two or three cases we were obliged to repeat the bleeding six or seven times, and the leeching two or three, before the disease yielded.

Purging, &c.—In aid of blood-letting, we employ purging to a liberal extent, during the continuance of the active stage of the disease; and for this purpose, we prefer the saline cathartics; especially when combined with an equal weight of calcined magnesia; the following are the usual doses: ℞. sulph. magnes., magnes. alb. ust. āā. ʒiij. M. div. in iij. One of these portions is to be given every two hours, in a wine-glassful of sweetened water or lemonade, until they operate freely.

We have also found decided advantage in the nitrous antimonial powders, until fever is reduced, or perspiration established. The regimen, throughout the active stages of the disease, is to be strictly *antiphlogistic.*

Topical applications.—Much injury is oftentimes done, by the injudicious employment of stimulating embrocations or liniments; this should be peremptorily forbidden. No kind of application whatever should be made to the limb itself, until after the fever has abated and the pulse is reduced. When this is effected, the vinegar vapour bath may be used, two or three times a day, with great advantage; but not before.

The mode of employing this is as follows; the limb should be bared in the bed, and the bed-clothes be raised from it by means of a common hoop from a barrel, being cut in two and tied together at right angles with each other; this must be made to straddle the leg. Three bricks must be heated pretty hot, and then plunged in vinegar; after they are loaded with the vinegar, they may be folded in cloths, and one applied to each side of the limb, and the other to the foot. The bed-clothes must now be returned over the spider, to keep in the vapour arising from the bricks. This steaming should be continued until the patient complains of feeling weak; they are then to be removed. This process is almost certain to produce a copious perspiration over the whole extent of the limb. Should this however not be found to be the case upon examining the limb in fifteen or twenty minutes after the application of the bricks, but instead, the limb is found to be hot and dry, these articles should be removed, as they will not succeed if they are even allowed to remain, as the heat of the limb is beyond the *sweating point.*

When this happens we may be certain that the bricks have been applied too early—that is, before arterial action is sufficiently reduced. In this case, we must renew the depleting remedies, either general or local, or both. On this account, it is always well, to carefully examine the pulse before we have recourse to this remedy. But when perspiration is induced, the patient is almost certain to experience great relief, though temporary for some time, for the most part; it must therefore be renewed, whenever the pain becomes excessive.

Opium.—From pain, and that excessive, for the most part, being the constant attendant upon this complaint, it has been thought too generally, that opium in some form or other should be administered —but this in our hands has always been found highly injurious in the early, and active stage, of phlegmasia dolens. It should therefore never be given until the system is sufficiently reduced to bear this drug with advantage. And when it is eligible, the best mode of administering it, is by injection. And for this purpose a tea-spoonful of laudanum in a gill of warm water may be used as occasion may require. Or Dover's powder may be used at bed time in the dose of ten grains, when the system can bear with profit the stimulus of its opium, and especially when the skin is indisposed to perspiration.

As a general rule, the system will not bear the use of opium, as long as the swelling preserves its elastic character; and this is generally from six to eight days. Nor should any stimulating applications to the limb be resorted to until, the intumescence puts on the appearance of œdema; for until this change takes place, the active, inflammatory stage has not passed away. About the time above specified, (for we have known it happen earlier or be retarded later,) pain, heat, fever, and swelling, begin to abate, and the patient is able to support her sufferings with less complaint. She can now for the most part bear the limb to be moved, or its position changed, without so much torture though still very far from being relieved.

External applications.—We have always made the changes now spoken of, the guide for an additional application to the affected limb; (that is, when there is an abatement of the constitutional symptoms, and the swelling will retain the impression of the finger,) we now order a moderately stimulating embrocation, consisting of a beeves' gall mixed in three half pints of brandy, rum, or whiskey. With this the limb is to be bathed, (not rubbed,) two, three, or four times a day, as the patient can best bear it, having it a little warmed previously. We would here suggest a caution to the nurse, that is more important than might at first sight appear—namely, to literally bathe the part, and not to rub it. Very great mischief is oftentimes done, by not paying attention to this rule, in all local applications, for nothing but evil can follow the other mode, so long as inflammation, (however moderate,) continues to occupy the parts. But after this condition is removed, we believe that advantage may be derived by gentle friction, as it appears to contribute to absorption.

Blisters.—These remedies have been recommended by almost every writer on the subject of phlegmasia dolens—but why, we are at a loss to understand. For they are either not the appropriate remedies, or we have been very unskilful in their application. We have never had recourse to blistering but twice; and sorely did we repent each application. The disagreeable irritation produced by its operation in the first instance, and the tedious disagreeable ulcer that followed, we imagined might have been owing to some accidental condition of the system, or perhaps idiosincracy; this led us to a second trial, but we experienced the same inconveniences; since when, we have altogether abandoned their use. Before we ordered this remedy, it is but proper to state, that we thought we had reduced the system, to the proper blistering point; but on this we may have been mistaken. Besides, however the disadvantages just mentioned, arising from blistering, there are others which should not be lost sight of—namely, preventing other local applications, and especially the one mentioned above, which in our opinion is very much more useful; and secondly, by obliging the patient to maintain one position unnecessarily long, which is of no trifling moment to the invalid.

Bandaging.—This application has been recommended in phlegmasia dolens by some practitioner, ab initio; but our own experience obliges us to say of it, that we have either been very unfortunate in our *lot* of patients of this kind, or if this be not so, that those, who have professed to have derived advantage from it, have mistaken œdema for phlegmasia dolens. For we certainly have never met with a case of this disease, that could bear without severe complainings the weight of the bed-clothes upon the affected limb, much less a tightly drawn bandage. We however must be honest, and confess, that we have ever been deterred from the application of the bandage in the early stage of the disease, from the presence of so much sensibility in the part; in the last stage, we have known peculiar benefit, derived from its use.

It is almost a constant sequence, that after all inflammation has disappeared, that the limb will remain swollen and feeble. For this condition, much advantage is derived from bandages, frictions with the dry hand, fumigating the limb with the smoke of burning rosin, and exercise in a carriage. The fumigation is conducted as follows; the patient's limb is to be placed across a tub, in the bottom of which there is a small chaffing dish with hot embers. A little powdered rosin is to be strewed upon the embers, and the fumes to be prevented from escaping by having a blanket spread over the limb and tub—this may be repeated twice a day.

It will be proper to observe that the limb should be kept a little elevated during the whole of the disease; this is best done by a board well protected by pillows, and placed under the leg, with its lower end raised as high as the patient's feelings will permit.

After the febrile symptoms have disappeared, the patient's diet may be a little more generous; she may take thin chocolate; a few oysters, chicken water, or soft boiled egg, &c.; and if there be much debility, any of the tonics in common use may be employed with advantage: and these will be aided by a well-regulated system of exercise, which must of course be left to the discretion of the physician, and to the circumstances of the patient.

ART. XI. *Some Account of a Case of Paruria Inops,* (GOOD,) *or Paralysis of the Kidneys.* By GEORGE HAYWARD, M. D. of Boston.

THIS disease, in which, according to Dr. GOOD, the "urine is unsecreted by the kidneys," and there is "no desire to make water, nor sense of fulness in any part of the urinary track," is of very rare occurrence. No writer but Sir HENRY HALFORD, that I am aware of, has published any account of it; this circumstance, together with the fact that its termination is usually, if not always in death, induces me to submit the following details of a case that recently occurred in my own practice.

On Thursday, July 16th, 1829, at 1 o'clock P. M. I visited a lady in the fiftieth year of her age, the mother of several children, who complained of considerable nausea, with diarrhœa and slight pain in the stomach and bowels. She had been as well as usual till Tuesday evening, but since that time had been so much indisposed as to abstain from all food. Her indisposition she attributed to taking cold, from exposure on Monday night. She had formerly been a good deal of an invalid, having suffered severely from repeated miscarriages, but had for the last eight or ten years enjoyed a very tolerable share of health.

I found her tongue covered with an unusually thick coat, her pulse between seventy and seventy-five in a minute, moderately strong, and her skin cooler than in health. I directed a gentle emetic of the wine and powder of ipecacuanha, to be followed by castor oil, and the dejections to be restrained by opium, if they were excessive.

On Friday morning I learnt that the emetic had operated thoroughly but mildly, and that she brought from her stomach food in an undigested state, that was taken on Tuesday. Her bowels had been so frequently moved as to render it necessary to give her three grains of opium at intervals. She was somewhat stupid, which at the time was attributed to the opium; the coat on the tongue remained about the same. She still complained of nausea; though she was free from pain; the pulse was slower than on the preceding day, and the temperature of the skin was diminished. At this visit, she told me that she had passed no water since early on Wednesday morning, but that she had no desire to do so, and no pain or inconvenience from it. On passing my hand over the bladder, I satisfied myself that it was not distended; I directed her to take one drachm of a mixture of three parts of the liquid acetate of ammonia, and one part of the spirit of nitrous æther, every two hours, and to let me know in the afternoon if she had not evacuated the bladder in the interval. I was sent for in the afternoon, as no water had been passed; there was still no suffering, and the bladder was not distended. I then introduced the catheter, and drew off about half an ounce of urine of a very healthy character. The patient was more drowsy at this visit than I had seen her at any previous one, and being now convinced that the whole trouble arose from a want of secretion of urine, I stated to her family that I considered her situation an alarming one, and that the disease would probably have a fatal termination. This surprised them, as her strength was good, she was without pain, and conversed freely, when roused from the stupor to which she was inclined.

I now directed a large blister to be applied over the kidneys, fomentations of hot herbs in spirit above the pubis, sinapisms to the feet, and stimulating frictions to the whole surface of the body, with a continuance of the diuretic mixture.

On Saturday morning all her symptoms were aggravated; the pulse slower, the skin colder, and the coma increased. The tongue remained coated, there was no appetite for food, and no water had been passed. A powder, composed of one grain of the sub-muriate of mercury, five grains of the nitrate of potash, and a scruple of cream of tartar, was ordered to be given every two hours, and the medicine that had been before directed was to be taken in the intermediate hours, and the other remedies were continued. No improvement took place during the day; on the contrary, the coma increased, the pulse became slower and more feeble, and the temperature of the skin was diminished.

Finding all her symptoms worse on Sunday morning, I directed ten drops of the tincture of cantharides and capsicum to be given every two hours, instead of the mixture of the spirits of nitre and Mindererus, and the other remedies to be continued. At this visit I passed the catheter, and drew off about an ounce of healthy urine. At 3 o'clock P. M. Dr. WARREN saw her with me; she was now so comatose that it was impossible to rouse her, and her pulse had sunk very considerably since morning.

Dr. W. advised to give one drachm of the tincture of cantharides and capsicum every two hours, to rub along the whole course of the spine with the same, and to continue the use of the other means. The medicine was given and the other directions followed till eight o'clock in the evening, when she became unable to swallow, her pulse ceased at the wrist, the surface of the body became cold, and the breathing stertorous, and at long intervals; and in this state she continued till Monday evening, at seven o'clock, when she died.

Sectio cadaveris, twenty-three hours after death.—The examination was made in presence of my friend, Dr. HOMENS, of this city.

The general appearance of the body was natural. On dividing the scalp from ear to ear, and dissecting it from the cranium, no fulness was discovered in the vessels of the integuments, and scarcely any blood was effused. The brain and its membranes were found to be in a perfectly healthy state, there was neither effusion nor congestion, but all the appearances warranted the conclusion, that the morbid symptoms were owing to the quality of the blood, rather than to its quantity.

There was no mark of disease in the stomach, intestines, liver, spleen, or uterus. The kidney of the right side was about half the usual size, and a third part of it at least was of a deep purple colour, exhibiting traces of considerable inflammation, apparently recent. When cut into it emitted a strong urinous odour.

The left kidney was not larger than a small English walnut, but of a healthy appearance, and free from any urinous odour. Both the ureters were somewhat inflamed. The bladder did not contain a drop of urine; the mucous coat was nearly black, appearing to have been the seat of violent inflammation. Whether this was the case, or whether the inflammatory appearance about the ureters and bladder was to be attributed to the absence of urine, the usual stimulus of the parts, is a point which I feel unable to decide.

As this disease so rarely occurs, and as all the cases that have come to my knowledge have terminated fatally, I shall be excused perhaps for adding a few remarks. The only printed account of this singular affection which I can find, is the one by Sir Henry Halford, referred to in the beginning of this paper. It was published in 1820, in the 6th volume of the Transactions of the College of Physicians, in London. It appears that he had never seen but five cases. They differed in some respects from the one above detailed. "All the patients were fat, corpulent men, between fifty and sixty years of age." "In three of them there was observed a remarkably strong urinous smell in the perspiration twenty-four hours before death." Nothing of this kind was discoverable in my patient.

In Sir H. H.'s patients no urine whatever was secreted; and he remarks, that "if any water, however small the quantity, had been made in these cases, I should have thought it possible that the patients might have recovered; for it has often surprised me to observe how small has been the measure of that excrementitious fluid which the frame has sometimes thrown off, and yet preserved itself harmless; but the cessation of the excretion altogether, is universally a fatal symptom in my experience, being followed by oppression on the brain."

From my patient, it will be recollected, that a small quantity of water was drawn off on Friday afternoon, and again on Sunday morning, showing that some secretion had taken place, which proves that the conjecture in the above quotation, as to the favourable termination of this disease under such circumstances, is unfortunately not to be much relied on.

The disease he denominates paralysis of the kidneys, and till something more is known of it, this name will answer perhaps as well as any other, though if it were fair to draw any conclusion from a single instance, it might be inferred, from the appearances in my case, that the paralysis was consequent on an organic affection. It does not appear that he made any examinations after death, nor has he detailed his method of treatment. Whether this affection is under the controul of any remedies we possess, remains to be proved, but hitherto all attempts to check it have been unavailing.

The slow and feeble pulse of my patient, the temperature of her skin, which was below the ordinary standard, and the entire absence of pain seemed to forbid all depletion, but indicated the administration of stimulants, such especially as would act on the urinary organs. But I must confess that nothing that was administered appeared to have the slightest effect in relieving the patient; and if another case should fall under my care, though I know not what different treatment I could pursue, yet I should feel but little encouragement in adopting my former plan.

Death in these cases is no doubt owing to the impure state of the blood, arising from the failure of the kidneys to perform their usual secretion. The circulating fluid, when it is first received from the lacteals, is in a state wholly unfit to support the vital functions. It is an important part of the office of the lungs, skin, and kidneys, to purify it, and if the customary action of these organs be partially interrupted, alarming consequences ensue, and a complete suspension of their functions produces death. This is well known with regard to the lungs. The immersion of the body into carbonic acid gas, is followed by an immediate suspension of vitality, and unless the lungs are soon supplied with respirable air, death is the consequence. The cause of this is, that the pulmonary organs, when deprived of vital air, are unable to effect that peculiar change in the blood which should take place in them; the blood is then sent to the left side of the heart in a state unfit for the purposes of life.

A similar effect, though less sudden, would be produced if there should be a total suspension of the action of the skin, and a failure on the part of the kidneys to perform the office assigned to them, is followed by like consequences. There is a great similarity in the morbid effects arising from these different causes, because the brain is in each case the organ primarily affected. To enable it to perform its functions well, it must be regularly supplied with what is called arterial blood, that is, blood that has been freed of its excrementitious part. But when impure blood is sent to it, it instantly ceases to act if the impurity be great, and immediate death is the consequence. If the noxious principles have been in part removed by the lungs, skin, and kidneys, the effects are not so sudden or violent; coma, however, usually comes on, which gradually increases, if the cause continue, till it terminates in death. When the kidneys, therefore, fail to secrete urine, and thus rid the blood of a part of the excrementitious matter which it contains, the functions of the brain are soon disturbed, and death ensues, unless, as sometimes happens, another organ performs a vicarious office for them.*

Boston, *August* 8*th*, 1829.

ART. XII. *Remarks on the use of Spirit of Turpentine in Incarcerated Hernia.* By C. B. HAMILTON, late Surgeon of the Marine Hospital at Washington City.

IN the last number of this Journal I have noticed a paper, by Professor SEWALL, on the use of the spirit of turpentine internally as a remedy in incarcerated hernia. In his concluding paragraph the professor observes, "it requires the experience derived from many cases, to entitle a new remedy to confidence:" and it may be added that a proper application of a remedy to those diseased conditions of the system, in which, from analogy and reason confirmed by experience, it is found to prove beneficial, is equally necessary to sustain that confidence when it is acquired.

I have for many years used the spirit of turpentine in incarcerated hernia, without being aware that it was a new remedy, and without its being in every instance successful, for in one case in which I employed it as a dernier resort, upon the patient's positively refusing to submit to an operation, no mitigation of the disease, but rather an aggravation of suffering, resulted from its exhibition. This was a case of omental inguinal hernia, and the patient died with all the symptoms of supervening mortification. That the hernial sac contained a portion of omentum only, I inferred from the bowels yielding to the operation of purgative medicine, which could not have been the case, had a portion of the intestinal tube been shut up by the stricture: the stricture in this case was in the tendon forming the ring, and therefore beyond the immediate influence of a remedy applied to the stomach. Among the earlier recollections of my boyhood, is the use of the spirit of turpentine in spasmodic or flatulent colic, and a case that came under my observation when about ten years of age, served to fix its use in this disease indelibly on my memory. This was a case in which an uterine inflammation succeeding to concealed abortion, in the person of a servant girl, was mistaken by her mistress for colic, and the turpentine administered with the most melancholy effect.

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* [The preceding case of a disease of unfrequent occurrence, is by a distinguished and judicious practitioner, and presents many points of interest. We may be permitted, however, to remark, that we have been led to entertain different views of the pathology and treatment of the disease, from those of our esteemed correspondent, and we shall probably take an early opportunity of laying them before our readers.]—ED.

Being called to a case, some years ago, of strangulated scrotal hernia of but a few hours standing, which, from the great distention of the strangulated bowel by flatus and excrement, resisted all my efforts at reduction by taxis, I was naturally led to speculate upon the cause of so great and sudden an accumulation in the gut. It struck me that if the occluding stricture existed in the abdominal ring, it must necessarily act alike upon the descending and ascending portions of the intestine, and that of course nothing could be derived to the incarcerated portion from that within the abdomen, to give it the volume it possessed. It therefore occurred to me that the descending portion of the tube was free, and that the distention was caused by a stricture taking place in the muscular fibres of the ascending portion, and arresting the passage of the contents of the bowels brought down by the peristaltic motion. Considering this state of things to differ in no particular from that which takes place in spasmodic colic, I at once resolved to make trial of the turpentine, the good effects of which I had so often witnessed in the latter disease, and it succeeded beyond my most sanguine anticipations. In a few moments the contents of the strangulated bowel were spontaneously removed, and the intestine restored to the abdominal cavity by taxis, with perfect ease.

About twelve months since, I was called to a coloured man, the property of John Addison, Esq. of this district. On my arrival, I was informed by his master that he had been for many years afflicted with scrotal hernia, that he had been in the habit of reducing it himself, that a few hours before he had been seized with severe pain in the part, and that the rupture now resisted his usual efforts to reduce it. On examining the patient, I found the scrotum so enormously enlarged that no trace of a penis could be seen; the integuments were cold to the touch, and the swelling elastic. The patient informed me that a short time before the attack of pain, he had eaten a quantity of unripe fruit, and ascribed his situation to that cause. Without making any attempt at reduction, I enquired if there was any spirit of turpentine in the house, and fortunately about the half of a common-sized wine-glassful was produced, which I immediately administered. The relief was instantaneous: the spasm was removed; the air and fæces, by the elastic pressure of the intestine, was carried upwards with a gurgling sound into its continuous portion within the abdomen, and in five minutes after, the patient with his own hand, reduced the rupture.

I have made these remarks for the purpose of directing the attention of practitioners to what I consider to be the only condition of the parts, (which, by the way, might, I conceive, be properly termed a scrotal colic,) in which the turpentine proves an invaluable remedy, and to express my opinion of the impropriety of administering it in those cases where the obstruction arises from a stricture of the tendon forming the abdominal ring, or from chronic enlargement of the incarcerated viscera.

Art. XIII. *Remarks on the Excision of Cartilago-bony Substances from the Knee Joint, with a Case.* By Samuel C. Bradbury, M. D. of Bangor, Penobscot County, Maine.

In his observations on the excision of cartilaginous substances from the knee joint, after speaking of "the perilous symptoms sometimes following wounds of the knee joint," Mr. Samuel Cooper says, "Small as the chance is of losing the limb, and even life, in the attempt to get rid of the disease, since the inconveniences of the complaint are in most cases very bearable, and are even capable of palliation by means of a bandage, endangering the limb and life in any degree must seem to many persons contrary to the dictates of prudence." But the same surgeon says further, "If a man be deprived of his livelihood, by not being able to use his knee; if he cannot or will not take the trouble of wearing a bandage; if he be urgently desirous of running the risk of the operation, after things have been impartially explained to him; if a bandage should not be productive of sufficient relief; and lastly, *if excessive pain, severe inflammation of the joint, a great deal of symptomatic fever, and lameness, should frequently be produced by the complaint, I think it is the duty of the surgeon to operate.*"

Now it appears to me, these are the very circumstances under which the operation would most likely be followed by perilous symptoms. That cutting into a joint already much inflamed,* or, if I may use the expression, in a state tending to inflammation, with high symptomatic fever, and perhaps in a highly irritable or even tainted constitution, should be followed by still greater inflammation and danger, is what every surgeon might expect; and if the operation in question, has sometimes "been followed by a violent inflammation, fever, and death itself," I think it may have been because it was performed on an improper subject, or at an improper time, or in consequence of improper treatment afterwards. It would seem that the most favourable circumstances for the operation are a sound, healthy constitution, and entire absence at the time of inflammation in the joint; and in this state of things, while the patient remains in a pure and healthy atmosphere, however dangerous or fatal the operation may have proved under opposite circumstances, or in crowded and tainted hospitals, I cannot believe the operation so hazardous as Mr. Cooper and others would have us believe; and I trust experience will prove, that excision is the only sure and comparatively safe mode of relief, in cases such as the one I am about to describe. By delay, in tampering with knee-caps and bandages, in such cases we every day endanger the production of the state of things above described by Mr. Cooper: a state at least as dangerous to the limb and life, as the operation, performed at a proper time on a suitable subject, can be; and a state which may forever preclude the reasonable hope of relief by the operation.

Case.—Oliver Brooks, of Newport, farmer, aged twenty-five, of robust constitution, consulted me on the 14th of July last, with two preternatural bodies in the joint of the left knee. They were easily moved in different directions about the joint, and from one side of the patella to the other. The complaint was brought on about two years before by a severe strain, which laid him up for several weeks. At the time of consulting me, there was no inflammation or lameness of the joint, except when in exercising the limb these extraneous bodies came in certain positions of the joint. This he said, would always happen on attempting to walk any considerable distance, and sometimes throw him down, as he expressed it, as suddenly as though he had been shot; causing severe pain and fainting at the time, and a degree of inflammation in the joint, which would occasionally confine him from his labour for several days.

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* [It appears to us, that our correspondent has misapprehended Mr. Cooper in supposing that he recommends the operation *during the existence of inflammation* in the joint, and we might adduce in evidence of this, several observations, from the same article in his Surgical Dictionary, quoted in the preceding paragraph.]—Ed.

I advised an operation, which was consented to, and which was performed in the following manner:—

The patient, sitting in his chair, with the limb extended, and the heel on the floor, brought both the substances together, at the outer side of the articulation near the superior attachment of the capsular ligament, and assisted in confining them. Drawing the integuments a little towards the patella, I divided them in a longitudinal direction to the extent of an inch and a half, and then carefully made an incision through the capsular ligament, over the extraneous bodies, of a sufficient size for their exit. The wound was then accurately closed by adhesive plaster, compresses, and the uniting bandage. In two hours after the operation, a very severe pain came on in the knee-joint, shooting up to the hip, which was only relieved by large and repeated doses of laudanum and ether. In two or three hours more the pain entirely subsided, and never in any degree returned. The patient was kept in a horizontal position, with the limb constantly extended, for the first forty-eight hours. A strictly antiphlogistic regimen was enjoined, and as he had undergone no previous prepation, on the second day free evacuations from the bowels were procured by Epsom salt. No inflammation or fever followed the operation, the appetite remaining unimpaired and sleep uninterrupted. On the third day, contrary to express directions, the patient walked on the limb for some distance, and in one week from the time of the operation resumed his usual labours, the joint being kept supported for some weeks with a large plaster of simple diachylon. The wound was but partially healed by the first intention; but soon healed entirely, and has since been perfectly well.

In this case the place of the incision was chosen, because the substances were not so easily brought together, or retained in any other position. The largest of these bodies was of a triangular shape, its longest side seven-eighths of an inch, and three or four lines in thickness, the outside cartilaginous and convex, the inside flat and bony.

Bangor, Penobscot County, Maine, August, 1829.

Art. XIV. *Case of Gun-shot Wound, with Remarks.* By J. W. Heustis, M. D. &c. of Cahawba, Alabama.

On the 16th of January, 1824, L. Roberts, of this place, was shot by the discharge of a small cannon, on board one of the steamboats, used as a signal for arrival and departure. He was standing with others on the bank of the river, and the piece being pointed incautiously to the shore, wounded by its discharge the subject of this article, in the back. It was supposed that the wadding of the gun was made of some old clothes having buttons on them, from the circumstance and appearance of the wound, which was on the right of the spine, just below the crest of the ileum, about the size of a quarter of a dollar. Upon examination, it appeared that the intestinal canal was broken, as the contents of the bowels were discharged freely at the wound. The place was dressed, and quietude and a recumbent posture were enjoined. Having a patient some miles distant, I did not see Roberts again until the next day. On my return, I was told that a consultation of physicians had been held upon his case, which was considered desperate, and that, with the approbation of the patient, they had come to the conclusion of opening the abdomen, searching for, taking up, and sewing together the wounded portion of intestine. The physicians who held this consultation, were gentlemen highly respected in their profession and by society at large. As they made known to me the result of their deliberations, I begged leave to differ from them in opinion, as the practice proposed was unauthorized by example, and at variance with the advice of the best surgical writers on the subject. Had the injured extremities or portion of intestine protruded from the wound, there could then have been no objection to uniting by suture the lacerated bowel, having previously peared off the jagged and deadened circumference, and then securing it to the external orifice. But here we should have been operating completely in the dark; a considerable thickness of adipose and muscular substances would have been required to be cut through before the intestine could be arrived at; besides, the bowels might have been wounded in more places than one, and the situation of these wounds was therefore a matter of uncertainty? The search might have been tedious and unsuccessful, or if successful, and the injured part had been properly united and secured, was there not reason to apprehend that such an extensive wound, the exposure of the abdominal cavity, and rough handling, would bring on dangerous or fatal inflammation of the peritoneum and intestines? I gave it as my opinion, that, however small it might be, the patient's only chance consisted in avoiding an operation so dangerous and uncertain, and, with proper medical treatment and external dressings, leaving the event to the curative operation of nature; to that *vis medicatrix*, so surprisingly presiding over human health and existence, from the first quickening of animal life to its final extinction. My advice was taken. The patient was laid upon a mattrass, on his back, partially inclined to the injured side; and as the contents of the bowels escaped by the wound, a corresponding hole was cut through the bedding, and as much cleanliness preserved as the nature of the case would admit. He was now regularly attended and dressed by Mr. HOGAN, a student of Dr. CASEY's, and myself, every day. No alarming general symptoms ensued; though for nearly three weeks substances taken by the mouth and enemata, were discharged in greater or less quantity by the wound. At length the residuary mass began to resume its natural channel, the external wound gradually healed and contracted, and a portion of the crest of the ileum, of the size of the finger, presented and was extracted from the external opening. Finally, the wound in the course of four or five months healed up entirely, and the man has since enjoyed very sound and comfortable health.

It is scarcely necessary to say, that in the treatment of this case nothing but gentle laxatives, enemata, and the mildest articles of diet, as soup and gruel, were allowed. The patient was an old soldier, a man of much firmness and resolution, and upon whom calamity, or the prospect of death, appeared to make little or no impression.

Against the practice of opening the patient and searching for the wounded intestine, Mr. JOHN BELL makes the following judicious observations. "When there is a wounded intestine, which we are warned of only by the passing of the fæces, we must not pretend to search for it, nor put in our finger, nor expect to sew it to the wound, but we may trust that the universal pressure which prevents the great effusion of blood and collects the blood in one place, that very pressure which always causes the wounded bowel and no other to protrude, will make the wounds, the outward wound and the inward wound of the intestine oppose each other, point to point, and if all be kept there quiet, though but for one day, so lively is the tendency to inflame, that the adhesion will be begun which is to save the patient's life."

A case similar to the one above, is given in the New York Medical Journal for December, 1828, p. 574, from the Memoirs of the American Academy of Arts and Sciences; and similar instances are recorded by a variety of authors.

It might be supposed that wounds penetrating the intestines through the parietes of the abdomen, would prove generally and necessarily fatal, yet even against this, nature has in a great measure guarded, by leaving no vacuum or unoccupied space within the general peritoneal cavity, and by the uniform and equable pressure and support which the diaphragm, the abdominal parietes, and the contained viscera afford each other. When the stomach and bowels are in a state of repletion, they are applied in close contact to the peritoneal envelope, and when the former are empty, this contact and adaptation are preserved by the contraction and elasticity of the latter: besides each convolution and portion of the intestinal canal has its appropriate location, so that in case of injury, the external wound corresponds with the internal.

Another way in which nature consults her own safety and preservation, is by the process of adhesive inflammation. One of the chief and the essential means of reunion, in cases of solution of continuity in the animal body, is the deposition of lymph, which becoming organized by the formation of new vessels and nerves, unites and envelopes contiguous surfaces and parts; so that in case the wounded portion of intestine, by rest and position can preserve its natural adaptation to the external opening for a few hours, the danger and possibility of displacement is effectually guarded against and prevented. "Soldiers," says Mr. John Bell, "recover daily from the most desperate wounds; and the most likely reasons that we can assign for it, are the fulness of the abdomen, the universal, equable, and gentle pressure, and the active disposition of the peritoneum, ready to inflame with the slightest touch. The wounded intestine is, by the universal pressure, kept close to the external wound, and the peritoneum and intestine are equally inclined to adhere. In a few hours that adhesion is begun which is to save the patient's life, and the lips of the wounded intestine are glued to the lips of the external wound. Thus is the side of the intestine united to the inner surface of the abdomen, and though the gut casts out its feces while the wound is open, though it often casts them out more freely while the first inflammation lasts, yet the feces resume their regular course whenever the wound is disposed to close."

Although nature thus guards against the effusion of the contents of the bowels into the cavity of the abdomen, yet we can readily suppose that this may sometimes be prevented by the severity and extent of the wound, dividing the intestines to such a degree, or in such a situation, as to cause their contents to be immediately discharged within the general cavity; this will be the more liable to happen should the alimentary canal be in a state of repletion and distention. Numerous cases are recorded by surgical writers, in which persons have been stabbed and shot through the body without fatal consequences, and sometimes without being followed by any serious or alarming symptoms. It is very probable that in some instances of this nature, the slippery and mobile convolutions of the bowels may elude the ball or the point of the weapon, yet in many, and perhaps the majority of cases, there can be little doubt that the intestines have been wounded to a greater or less extent, and that the discharge of matter from them into the general cavity of the abdomen is prevented by that uniform and equable pressure and support afforded by the juxta position and adaptation of contiguous and surrounding parts, and as already stated, the adhesive inflammation which speedily takes place, prevents all danger of effusion after the lapse of a few hours.

I am aware that in these observations I have little claim to originality, yet as a bare detail and history of isolated cases without suitable remarks and explanations is comparatively uninstructive, the above considerations, I trust, will not be thought unappropriate.

Cahawba, July 15th, 1829.

Art. XV. *Case of Immobility of the Jaw, successfully treated.* By Valentine Mott, M. D. Professor of Surgery in Rutgers Medical College, New York.

During the last winter, a young man about twenty-one years of age, from North Carolina, called upon me with the lower jaw almost immoveably fixed to the upper. There was not the least motion to be discovered in a downward direction, nor was the most powerful effort with the hand upon the chin, able in the slightest degree to alter its situation.

He had been in this deplorable state for between ten and eleven years. Unable during that time to chew a mouthful of food, he introduced all the solid aliment which passed into his stomach through an opening on the right side, occasioned by a small aperture from an irregularity of the bicuspides teeth.

On the left side, just within the angle of the mouth, and opposite the situation of the cuspidatus tooth, a very firm band was to be seen and felt, reaching from this point along the alveolar ridge to the coronoid process. It was of more than ligamentous hardness.

Along the whole course of this adhesion of the cheek to the gum of the lower jaw, there was not the vestige of a tooth; and he stated that from this part a large piece of the jaw had been formerly separated with the teeth attached to it. This morbid adhesion had been several times freely divided, but no depression of the lower jaw could be effected. It was cut from within the mouth in different directions, but never allowed the least motion to the jaw.

From his being able to give a little lateral motion to the lower jaw, I felt encouraged to hope, that some relief might be afforded him, and that his mouth, by some powerful efforts, might yet be opened. He consented with great cheerfulness to any operation which I thought could be performed, to enable him to receive food with more satisfaction, and restore the power of speaking, which was also very much impaired. If this could be accomplished, it would, moreover, very much improve his expression generally, as his face had become very much contracted and mis-shapen.

Seated in a chair, I made an incision from the angle of the mouth on the left side, through the cheek, and carried it to near the edge of the coronoid process, dividing the firm cicatrix within completely. Then cut the adhesion freely from the upper and lower jaws, so as to relieve the jaws entirely from all restraint from that cause. A piece of very broad tape was now conveyed between the teeth by means of a probe and spatula, and tied some distance below the chin. The head was now firmly held, and with all the force I could exert in the loop of this tape, not the least yielding of the lower jaw could be discovered.

As no force which I could exert would enable me to open the mouth, I was prepared to apply the mechanical principle of the screw and lever. For this purpose we had prepared an instrument composed of two steel plates, about three inches in length. When applied to each other they were of a wedge shape. To the large end was attached a screw, with a broad handle, which, when turned, caused the thin extremity of the plates to expand. (See figure.) This powerful combination of the lever and screw enabled us to open the mouth completely.

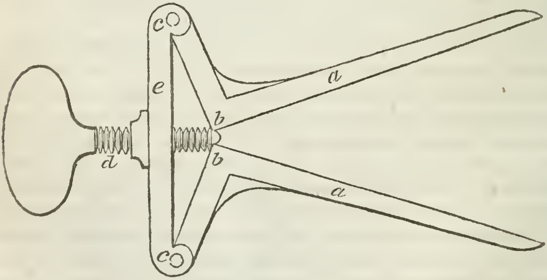
With considerable difficulty we succeeded in insinuating this *vice* between the range of teeth on the left side, being careful to have it rest along their whole course as much as possible. It was then expanded by turning the screw, and such was the report that attended the yielding of the lower jaw, that several exclaimed that the jaw was broken; but to me the noise was like the laceration of ligaments, and not such as attends the fracture of a bone. The mouth was immediately opened to a sufficient extent.

The wound of the cheek was closed with three interrupted sutures, aided with strips of adhesive plaster. From the mouth being kept constantly open for several days, by the instrument secured between the teeth, it occasioned much strain upon the stitches, and made the adhesive strips of material importance.

Either the instrument or a soft piece of wood was placed constantly between the jaws to keep the mouth sufficiently open until the cheek had healed. During this time he received his drinks and liquid nourishment from a spoon or the spout of a tea-pot. When in this way they were conveyed well towards the base of the tongue, he was enabled to swallow without much inconvenience.

As soon as the external wound in the cheek was healed, the instrument was removed, except at night, and occasionally during the day, and he was now permitted to move the lower jaw. To prevent the cheek from adhering to the jaws internally, pieces of sponge were constantly interposed. To enable the jaws to approximate, it was necessary to remove the last molar tooth of the upper and lower jaw of the left side. Several of the incisors were of the most extraordinary length, and required to be filed off before a proper use could be made of the others.

He gradually acquired the power of closing the jaws, and was greatly delighted with the result of an operation which enabled him to chew his food, and enjoy his meals as other persons, which had given proportion to his features, and the ability to converse and articulate distinctly.



Explanation of the Figure.—aa. the two levers bent at right angles, and united to the fulcra *cc.* by a joint. *d.* the screw passing through the centre of the bar *e.* and acting upon the angles *bb.* which are notched to receive its point.

New York, 25 *Park Place*, *September*, 1829.

P. S. Since the above was written, I have successfully operated in a similar case, using the same instrument, upon a gentleman from Louisiana.

MEDICAL EDUCATION AND INSTITUTIONS.

Art. XVI. *Account of the Hôpital des Vénériens at Paris.* By Elisha Bartlett, M. D. of Lowell, Massachusetts.

THE hospitals of Paris which remain to be noticed, are devoted to the reception of certain classes of patients, and to the treatment of some particular classes of disease. They are of course less general in their destination than those, of which we have already given some account in this Journal. Among the most important of those referred to, are the *Hôpital des Vénériens* and the *Maison de Santé*, intended exclusively for the treatment of venereal affections; the *Hôpital St. Louis*, appropriated to the reception of patients with cutaneous diseases; the *Hôspice de l'Accouchement*, called the Hôspice de la Maternité, for lying-in women; the *Hôpital des Enfans Malades*, for sick children; the *Hôpital des Enfans Trouvés*, or Foundling Hospital; one establishment for incurable men, and one for incurable women. The present paper will contain a notice of the Hôpital des Vénériens.

When the venereal disease first made its appearance in Paris, during the reign of Charles VIII. the patients were sent to the "Hôpital des Petites Maisons." Under the reign of Louis XIV. they were sent to Bicêtre. The following account of the manner in which patients afflicted with this disease were treated, will not be uninteresting. It would be almost impossible to believe in so horrible a state of things under the reign of the illustrious Louis—the monarch celebrated for the patronage he bestowed on learned men and benevolent institutions, and who has given the name to his age—were it not attested by the Report of the General Council of Hospitals, published in 1816. As many as eight patients were laid on the same bed; or rather a part of them remained extended upon the floor from eight o'clock at night till one in the morning, when they changed places with those who had occupied the bed. Twenty or twenty-five beds served commonly for two hundred persons, of whom one-third died. This was not all. The patients, according to a decree of the administration, were chastised or *flogged*, (fustigé,) both before and after their treatment. This abominable state of affairs continued till the eighteenth century, and M. Cullerier cites a deliberation of 1700, which renews expressly the order to *fustigé* the patients!

The disease was afterwards treated at the Hôtel Dieu and at Salpêtrière. Children born of infected mothers, were received with their mothers into the Hôspice de Vaugirard.

In 1784, the ancient convent of the Capuchins of the Faubourg St. Jacques, was converted into a venereal hospital. This establishment is airy and extensive, and embellished with gardens. Two sides of it look out upon the country. In 1785, the patients from Bicêtre were transferred to this hospital, then those from Vaugirard, and in 1792, the new hospital was in a situation to receive all who were destined to it. Many improvements were made from 1802 to 1805. The mortality from the foundation of the hospital for ten years, was one in forty-seven for the men, and one in forty-eight for the women. The number of women entered during this period was more than 12,000; the men, 9,342. Since 1801, for some years the mortality has been much more considerable. In 1802, it was one in fourteen; in 1803, one in fifteen. In the ten years dating from the 1st of January, 1804, the number of patients received into the hospital was 27,576: men, 13,638; women, 12,163; boys, 794; girls, 981. The number for the four last of these years, was much greater than for all the others. In the four years from January 1st, 1810, the number was 13,765: men, 7,184; women, 5,773; boys, 337; girls, 471. The deaths during these ten years was 1,170, almost one in twenty-four. There was a great disproportion between the mortality of the children and of the adults. In the children it was one in two and a half. There is also connected with this hospital an external and gratuitous treatment, of which the regular exercise commenced in 1808. The number of patients who have received this gratuitous treatment, has increased each year. In 1809, it was 978; in 1811, it was 1400; and in 1813, 1509. The council general gives a curious table of the men of each trade who have had recourse to this treatment. It results from this table, that those most subject to the disease are shoemakers and tailors. After them come bakers, carpenters, joiners, weavers, and masons. Those who appear less liable to this malady are the water-carriers, barbers, and glaziers. In 1811, there were 161 shoemakers, 131 tailors, 55 bakers, 49 carpenters, 59 joiners, and 25 weavers; while in the same year there were but 5 water-carriers, 10 barbers, and 11 glaziers. The year 1813 gives nearly the same proportion.

Statistical Table of the Hôpital des Vénériens, for 1822.

	Men.	Women.	Nurses.	Children with Nurses.	
				Boys.	Girls.
In the hospital, January 1st, 1822.	164	186	36	28	19
Admitted during the year.	1,108	1,479	124	84	91
Deaths.	9	16		34	25
Remaining, 31st December, 1822.	185	260	30	32	17

The ages giving the most patients were from seventeen to twenty-eight years. The greatest number of female patients were from among the laundresses, embroiderers, mantua-makers, and domestics. It will be seen that out of eighty-four deaths, fifty-nine were children.

This hospital is devoted to the exclusive treatment of syphilitic diseases, and of affections depending upon them. It is confided to the care of MM. Cullerier, uncle and nephew, and to Professor Bertin.

"Numerous researches," says M. Ratier, "made by the physicians who have the care of this institution, have resulted in the establishment of the following body of doctrine. Notwithstanding the different forms which the syphilitic malady assumes, the principles of its treatment ought always to be the same. They are only modified as the affection is primary or consecutive. The local treatment varies according to the severity of the symptoms. Mercury is considered here as a specific against syphilis, and those cases where it does not succeed are exceptions which do not affect the general rule. During a long period of time this substance was considered the only remedy, but observations made in Spain and Italy, have proved that vegetables, and especially sudorifics and a warm climate, have cured the disease without mercury. The ptisan of Feltz, which is much used in this hospital, ought not to be considered a beverage purely vegetable, for besides the various plants which enter into its composition, there is added isinglass, and a preparation of antimony, which always appears to contain a variable proportion of white oxide of arsenic. Some facts, and especially experiments made at the Hôpital St. Louis, in different cases of venereal eruptions, seem to prove that this oxide very much increases the efficacy of the ptisan of Feltz.

"When it is necessary to combat the primitive symptoms, the liquor of Van Swieten, which is a tincture of corrosive sublimate, is used, and constitutes the most ordinary treatment. The tincture is an extemporaneous preparation, in order to avoid the decomposition of the sublimate. M. Cullerier thinks that the liquor of Van Swieten does not deserve the reproaches it has received, and that whatever accidents it has produced, have been occasioned by its improper administration, and by the existence in the patient of a chronic gastro-enteritis, or a predisposition to pulmonary disease. If the patient is afflicted with cough, or exhibits symptoms of phthisis, or if the abdomen is the seat of some irritation, so that the liquor produces pains of the stomach and vomiting, M. Cullerier makes use of mercurial frictions, or of some other preparation of mercury by the mouth.

"If a patient presents himself with secondary syphilitic symptoms, from the entire confidence which M. Cullerier has in the liquor, he still administers it, and with a success so remarkable, that it may be said if the disease sometimes resists the remedy and continues to progress, it may be attributed to the negligence of the patient in pursuing the course of treatment. In constitutional syphilis, M. C. also considers mercurial frictions an efficacious remedy, and he employs them indifferently with the liquor of Van Swieten. He uses them in those cases where the patient does not well bear the last preparation. When he administers the liquor in inveterate venereal affections, he usually unites with it a sudorific ptisan, and when the patients exhibit symptoms of debility, he adds to the ptisan sulphate of quinine.

"The ptisan of Feltz is also employed, and, according to M. Cullerier, with a success truly surprising. He administers this remedy when secondary venereal symptoms, such as exostosis, deep-seated pains, periostosis, cutaneous eruptions, ulceration of the soft parts, and caries of the bones or cartilages of the nose and mouth, after having several times yielded to the treatment by the sublimate and frictions, again reappear. This remedy then almost constantly succeeds, even after the disease has a long time existed, at least when the malady has not produced too profound alterations of the tissues.

"The hydro-chlorates of gold and platina, have not justified in the hands of M. C. the pompous annunciations of their promulgators, and their use has been abandoned. He considers baths containing a solution of the sublimate, an energetic mean of cure, but as this mode of administration requires much precaution, it is but rarely used in the hospital. The local applications are few and simple. They consist of simple or mercurial ointment to the ulcerations, but most commonly of lint moistened with a decoction simply emollient or narcotic, and of appropriate applications, as the sores may be fungous, irritable or indolent. As to fleshy granulations, (végétations,) excision is not resorted to, except when the specific treatment is finished, or nearly so. This operation is then generally successful, but in some cases these vegetations seem to pullulate with increased activity. When this is the case they are cauterized with nitrate of silver, hydro-chlorate of antimony, or nitrate of mercury. But these vegetations will sometimes still resist the activity of these applications.

"Fissures of the anus are also attacked with caustic. The actual cautery has succeeded best in the practice of M. Cullerier. Those which sometimes appear on the hands and feet, demand perfect cleanliness and repose, and are constantly cured with the liquor and frictions, and a local dressing with simple or mercurial ointment. Venereal pustules do not require any peculiar treatment. In exostosis, periostosis, &c. local bleeding has never been of much utility.

"In regard to the nature and importance of gonorrhœa, there still exists a difference of opinion. M. Cullerier believes his long experience has demonstrated that this affection is often followed by a general infection, so that he thinks this symptom ought to be combated with means appropriated to the treatment of constitutional syphilis."

There is one other establishment in Paris for the treatment of this class of diseases, called the "*Maison de Santé.*" This *house of health,* adjoining the Venereal Hospital, was opened in 1809. It is divided into small apartments, and patients of both sexes are admitted at a stated price per day, including all expenses. They are treated with much attention. In 1813, the number of patients was 269; in 1822, it was 310.

We have introduced the notice of the above institution here, more particularly for the purpose of speaking of the practice of one of the surgeons connected with it; the celebrated and venerable Dubois, the compeer and associate of Baron Boyer. His practice and principles are thus briefly summed up by M. Ratier:—

"Although more particularly devoted to surgery, this distinguished practitioner is much occupied with internal affections, for which a great number of patients claim his attention. It is well known that M. Dubois holds on many points of practice, opinions which are peculiar to himself, and which he has adopted as the fruits of a long experience. He regards the tonic treatment most efficacious in scrofulous and scorbutic affections. He considers mercurial frictions *pushed to salivation*, as the mean most certain for the cure of obstinate and inveterate syphilitic maladies, while with the greater part of physicians, salivation is considered an unfavourable consequence of the mercurial treatment, and one which they carefully guard against. His opinions in general, approach those of Brown, and he makes frequent use of tonics, stimulants, and revulsives. Venesection he practices with an extreme reserve, even in those cases where the greatest number of physicians insist most on its employment. He rarely prescribes general bleeding in acute phlegmasias—membranous or parenchymatous—limiting himself for the most part to a few leeches, following their application with blisters."

Before closing this article, it may not be uninteresting to present a short abstract of the anti-syphilitic treatment of Baron Dupuytren:—

"Syphilis complicates many surgical diseases, and itself produces a considerable number. Hence arises the necessity of uniting an anti-syphilitic treatment with other surgical remedies in these complicated affections. It is in vain in these cases that we treat separately the principal malady and the venereal complication. It is almost always necessary in order to cure them, that they should be simultaneously treated. The choice of curative means is here of the utmost importance. Metallic mercury reduced to a state of oxide by trituration with lard and applied by friction, cannot besides other inconveniences, be used without much difficulty in the general hospitals, and the large halls ordinarily deprived of a temperature which disposes the skin to absorption. Corrosive sublimate, administered by the mouth in a diluted or concentrated solution, has also its inconveniences: in a concentrated solution, it acts too powerfully on the stomach, while it irritates and inflames the lungs; in a weak solution with the daily tisan, it is almost always decomposed, precipitated, and thus deprived of its efficacy; while its administration necessarily abandoned to the will and sagacity of the patient, is frequently very irregular.

"The venereal affection, when it complicates surgical diseases, is generally ancient, inveterate, and as it is called *constitutional*, being most frequently characterised by eruptions, night pains, &c. These considerations have directed M. Dupuytren in the choice of the means which he employs against these complicated affections. His treatment is made up of sudorifics, mercurials and anodynes, somewhat after the following formula.

"Take every day, for a common drink, a tisan composed of *Radix chinæ*,* sarsaparilla, and guaiacum, a half ounce each, boiled in a quart of water till the mixture is reduced one-third. Add to the first glass of this at morning, and to the last at night, a sudorific syrup.

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* A chinese plant resembling sarsaparilla.

"Take morning, noon, and night, one hour before eating, a pill composed of Ex. Guaiaci, two grains; watery extract of opium, half a grain, and corrosive sublimate, one-sixth of a grain.

"He does not ordinarily make use of any local treatment, so that the local symptoms become in some manner an index to the operation of the internal remedies, and they disappear almost constantly after these last have been used a certain length of time, to wit—the pains at the end of eight or ten days; the venereal character of wounds and ulcers at the end of a few weeks; indurations, excrescences, and the ulcers themselves, in a month or six weeks, and at last the exostoses.

"It has been too generally the case, that venereal affections have been considered radically cured, as soon as the symptoms have disappeared. M. Dupuytren is persuaded, that in the greatest number of cases the disease is then only palliated, and all the symytoms will very often spontaneously return. He has adopted, as a general rule, in the treatment of constitutional syphilitic maladies, to continue the employment of the curative means after the entire disappearance of all the symptoms, during a time equal to that which was taken up by the treatment before the disappearance of the symptoms."

Lowell, Mass. September 15th, 1829.

REVIEWS.

ART. XVII. *The Influence of Climate in the Prevention and Cure of Chronic Diseases, more particularly of the Chest and Digestive Organs: comprising an account of the principal places resorted to by Invalids in England and the South of Europe; a comparative estimate of their respective merits in particular diseases; and general directions for Invalids while travelling and residing abroad. With an Appendix, containing a Series of Tables on Climate.* By JAMES CLARK, M. D. Member of the Royal College of Physicians of London; Corresponding Member of the Royal Medical Society of Marseilles, of the Medico-chirurgical Society of Naples, of the Medical and Physical Society of Florence, of the Academy of Sciences of Sienna, &c. &c.

A KNOWLEDGE of the physical effects of heat and cold on the human constitution, is of the utmost importance to the advancement of medical science and to the attainment of certainty in the alleviation and cure of diseases. But, unfortunately, our acquaintance with this branch of study has made but slender advances. It is true, there are many detached essays which are extremely valuable and throw considerable light on this intricate subject, but medical literature is as yet deficient in a work, which, whilst it treats of climate and other atmospherical phenomena in a philosophical point of view, at the same time demonstrates in a clear and perspicuous manner, the influences exercised by such agents on the human economy in a state of health and disease. Such a work can only be produced after a long and diligent course of enquiries, and in all probability will be rather the result of the investigations of numbers, than the fruits of individual experience.

One of the first writers on the subject of climate as connected with disease, was HIPPOCRATES in his treatise "De aere, aquis et locis." This work is remarkable for the profound and philosophical views it displays, and when we consider, what slender advances, had been made towards a physical knowledge of nature in the author's time, and that the facts and observations detailed in it, must have been the result of his own diligent and sagacious attention, it appears wonderful that his deductions should have been so accurate. But we are not to expect from him, too much, for although he travelled extensively in Asia and

Greece, yet his observations on the winds, &c. are of a local character, and are only applicable to those situations in which he observed them. It should always be borne in mind, in consulting writers on atmospheric influences, that the difference of climate and other concommitant circumstances, between the situation described and that of the reader, must be taken into consideration; this has been too often overlooked, and has given rise to much confusion and mischief.

Of late years, the labours of LANCISI, PRINGLE, CLEGHORN, LIND, BLANE, JOHNSON, and others have contributed much to elucidate the effects of particular climates, but they are far from rendering our knowledge complete. Dr. GREGORY's work on the "Influence of a Change of Climate in the Cure of Diseases," and "FOSTER's Illustrations of the Atmospherical origin of Epidemic Disorders of Health," have also added to our information on these topics.

The author of the work now before us, is advantageously known from a former publication, on the same subject, abounding in important facts, detailed in a clear and practical manner. He possesses a sound judgment, great zeal, and has enjoyed unusual opportunities for investigation.

In the present publication his object is to elucidate the physical characters of certain climates, with his experience of their effects and the medicinal or remedial qualities of each particular climate, as deducible from the combined results of the two preceding sources of information. Much of it is necessarily of a local character, and of course not of sufficient interest to American readers, to render an analysis requisite; we shall therefore confine our extracts and observations to those parts, which have a general and universal applicability.

General influence of climate.—After remarking on the advantages which accrue from a partial change of residence, in the mitigation and cure of many diseases, where they had long resisted medical treatment, our author observes that—

> "If such marked results are produced by a change of so limited an extent, it is surely reasonable to expect that a complete change of climate, together with the circumstances necessarily connected with this, should produce still more important results, and in this expectation we are borne out by experience."

The great fault has been in resorting to this expedient at too late a period, using it in fact as a forlorn hope, only to be employed when the case has become so desperate and uncontrollable as to baffle the best directed treatment; hence it is scarcely to be wondered at, that success so seldom attends the practice of sending invalids from home; and the failure ought not to be attributed to the want of power in the remedy, but rather to the period at which it has been prescribed.

In large and populous towns, the state of artificial society acts in an imperceptible, but finally marked manner on the health of their inhabitants, though the diseases induced may be infinitely varied by the habits and occupations of the individuals.

> "In that numerous class of persons, indeed who are merely suffering from a residence in the city, without any decided disease, the simple change to the country may be all that is requisite to restore their health."

It is this class to whom excursions to our different watering places is of such decided benefit, and it appears immaterial to which they resort, whether to inhale the sea breezes at Long Branch and Cape May, or to enjoy mountain air and exercise at some of our inland places of amusement: they gain a renovated stock of health at any, the mere change from the vitiated and close atmosphere of our cities to the pure and invigorating atmosphere of the country, with the necessarily attendant exercise, being all they require.

> "But the case is very different with the real invalid, whose sufferings are chiefly referable to some particular disease. To him, the selection of his temporary residence is not a matter of indifference. For one individual of this kind, an elevated situation and a dry bracing air, will be the most proper; a sheltered residence, with a milder air, will be suitable to another; while the sea-side may be the situation indicated for a third."

This has unfortunately been but little attended to, and a trip to the springs or the shore, is recommended indiscriminately for all classes of disease, without sufficient reference being had to their nature and symptoms. But the great difference that exists in the physical characters of the various watering places in the United States, renders a selection of that best suited to the disease under which our patient may be labouring, a matter of paramount importance.

The mere act of travelling, is often a remedy of great value, and we are much inclined to believe that in a majority of cases, the beneficial effects attributed to the specific virtues of the different medicinal springs is mainly owing to this cause. From the continued change of air and scene, both the body and mind become invigorated, and the sufferer is oftentimes astonished to find that a manifest alleviation of his disease has occurred even before he reaches the place of his destination.

> "But neither travelling, nor change of climate, nor the combined influence of both will produce much permanent benefit unless directed with due regard to the nature of the case, and aided by a proper regimen. The air or climate, is often regarded by patients as possessing some specific power, by virtue of

which it directly cures the disease. Let it not be imagined that change of climate, however powerful as a remedy, can be considered in its mode of action as totally different from other remedies or as justifying, either on the part of the physician or patient, the neglect of those precautions which are requisite to ensure the proper action of all our therapeutical means."

Dr. Clark examines the climate of different parts of Europe in detail, commencing with that of England. From his observations, and the concurrent testimony of other writers, it is apparent that places situated but a few miles from each other, but differing in their exposure, present visible and strongly marked variations in their temperature, and more particularly in their effects on invalids, however close their resemblance to each other may be in general characteristics. From such data, our author has made a kind of grouping or natural classification. Thus, he divides the mild region of England into four districts; that of the south coast, the south-west coast, district of the land's end, and the western coast comprehending the places situated on the Bristol channel, each of these regions having peculiar characteristics in its climate, which distinguish it in a medical point of view. There is little difference between these places as to their annual mean temperature, but there is considerable variation as regards the distribution of heat. This is a most important particular in our estimation of climate, when considered medically, for although the mean temperature of a country, as for instance in our own state, may indicate mild and temperate climate, there may be such rapid and great transitions from heat to cold, as to unfit it for the residence of patients affected with certain diseases.

The south of France has long been considered as affording peculiar advantages to invalids, on account of its mild climate; and thousands have resorted to it in the oftentimes vain hope of restoration to health, but it is evident not only from Dr. Clark's statements, but also from the testimony of several recent writers, that these expected benefits have been much overrated.

"The climate of the southern provinces of France, admits of being classed under two divisions, namely, the south-eastern and south-western. These two regions differ essentially from each other in the physical characters of their climate."

The climate of the south-western coast, appears to be very mild in the winter and temperate during the summer; it is soft, relaxing, and rather wet, and well suited to gastritic dyspepsia and the dry bronchial irritations, as well as all chronic inflammations of the mucous membranes accompanied with little secretion.

The south-east of France, however, has been the great resort of invalids, especially those afflicted with consumption, but experience has most amply shown, that few places are worse calculated to produce beneficial consequences. Dr. Clark demonstrates this in the clearest manner, not only by a reference to the physical characters of the climate, but also, by the actual prevalence of consumption among the inhabitants, and especially, from the total want of success attendant on the measure.

The general character of the climate of the south-east of France is dry, hot, harsh and irritating. Its temperature is distributed through the year, and through the day with great irregularity. This tract of country is subject also to keen, cold northerly winds, especially the *mistral*, which prevails during the winter and spring, and is most injurious to pulmonary diseases.

Italy.—This country, from its diversified surface and stretching through so many degrees of latitude, necessarily possesses a great variety of climates. Dr. Clark has confined his observations to that part of it situated between the Appenines and the Mediterranean; this tract of country, he observes, exhibits a great similarity of character, the principal circumstances which modify it, being the relative position of places, with respect to the sea or the mountains. Italy, with but few exceptions, does not appear to be well suited as a residence for consumptive patients, particularly in the summer season. The climate of Rome, as regards its physical qualities, is altogether the best in Italy, and is remarkable for its calmness and stillness; hence, it is valuable as a winter residence for persons labouring under pulmonary diseases; this place is however subject to occasional storms of wind called *tramontane*, resembling the mistral of Provence, during the winter months.

As a summer residence, Rome is peculiarly unfitted for invalids, from the prevalence of that scourge of Italy, the malaria. Dr. Clark's observations on this subject are extremely interesting, as containing the result of several years personal experience. He is of opinion, that the fevers caused by the malaria are similar to all fevers arising from marsh miasmata, and that the whole of this class of diseases only differ from each other, from some peculiar circumstances in the nature of the climate, or the season in which they occur. Of this, there can be little doubt, for although in some situations they assume a very formidable character, it is easily demonstrable, that the fevers of the southern section of our country, the jungle fevers of India, and those of the fens of Lincolnshire, all belong to the same class, as the malaria fevers of Italy. These complaints seldom appear in Rome before July, and cease about October; the exciting causes are exposure to currents of cold air after the body has been heated; long continuance under the direct influence of the sun's rays, and improper diet. Respecting the last of these causes, Dr. Clark makes the following just and pertinent remark:

> "If there be any one circumstance in the state of the constitution, which more than another enables it to resist disease, and to pass through disease safely when it does make its attack, it is, according to my observation, a healthy condition of the digestive organs. In every situation of life, and in every climate, this holds true."

Our author is of opinion, that the common idea of the rapid increase of the influence of the malaria around Rome, is erroneous. From a comparison of the admissions into the Hospital of S. Spirito, (the largest in Rome,) for twenty-five years, he found that there was no great difference in the number attended, except in certain years which were remarkable for their unhealthiness.

Dr. Clark also notices a peculiarity of the inhabitants of Rome, which has been observed by every traveller, the peculiar sensibility of their nervous system. Even a temporary residence of some duration at this place, produces a degree of the same morbid state, apparently depending in a great measure on the climate.

We pass over what our author says respecting Switzerland, to notice his remarks on Madeira. This island has long been noted for the mildness and equability of its climate, and on a comparison of its temperature with other countries, it appears that this character is well founded, particularly as regards its equability. The mildness of the climate is also accompanied with a corresponding degree of health in the inhabitants, as the island is almost exempt from the diseases peculiar to warm climates, and little subject to many of those common in the northern. Consumption, however, it is asserted, is extremely prevalent; this is denied by some late writers, particularly by Dr. Heineken. (Med. Repos. vol. xxii.)

The folly of sending patients in an advanced stage of consumption, to a milder climate, in the hope of cure, can only be productive of mischief and disappointment. When the character of this disease is fully developed, it unfortunately bids utter defiance to all plans of treatment and all changes of situation; when it has proceeded to any extent, it is the bounden duty of the physician to dissuade a patient from attempting a removal from among his friends, in the vain hope of a restoration to health. In foreign countries, experience has amply shown, that instead of a cure, all that is found is an early grave. Dr. Clark gives the result of cases sent to Madeira, taken from records kept by Dr. Renton for eight years, fully corroborating what we have said. Of forty-seven cases of confirmed phthisis, thirty-two died within six months after their arrival in Madeira; six went home, returned and died; six left the island, whose death has been ascertained, leaving but three, who also it is probable died. With regard to incipient phthisis, however, a removal to a mild and equable climate has certainly proved advantageous, and should be resorted to, with as little delay as possible. Dr. Clark speaks in the highest terms of Madeira, as affording greater prospects of cure, or at least alleviation of the disease, than any other place. Judging, however, from the concurrent testimony of various writers, we should be tempted to think that he has overrated its advantages; for, even granting its superiority in equability and mildness of temperature, still it is necessarily exposed to that bane of consumption, a mixture of land and sea air. Dr. Hunt, of Washington, has collected together a mass of testimony on this point, which most amply demonstrates, that situations exposed to the action of sea air should be carefully avoided.* It is certain that all our towns on the sea-board are infinitely more afflicted with this disease, than those situated more inland. A comparison of the bills of mortality of Boston, New York, and Philadelphia, will at once convince any one of this fact. In the United States there is no necessity for sending our consumptive patients abroad to obtain the advantages of a mild climate, our southern states affording every advantage of temperature that can be obtained elsewhere, particularly in the pine forests in the interior of Carolina and Georgia, and the interior of Florida.

The second part of Dr. Clark's work is infinitely more interesting to us than that we have examined in so cursory a manner, being devoted to the consideration of the principal diseases which are benefitted by a mild climate. As is observed by our author:

> "Too much is generally expected from the simple change of climate. From the moment the invalid has decided on making such a change, his hopes are too often solely fixed upon it, while other circumstances equally important to his recovery, are considered of secondary value, or sometimes wholly neglected. Nor is the fault always confined to the patient; his medical adviser frequently falls into the same error, and it is not difficult to account for this. The cases hitherto sent abroad have been, for the most part, consumptive or chronic diseases, of long standing, in which the ordinary resources of our art have usually been exerted in vain, before such a measure is recommended. Therefore, when a change of climate is determined upon, the physician, as well as

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* North American Med. and Surg. Journal, vol. i. p. 284.

the patient, is disposed to look upon it as the sole remedy. The former generally advises all medicines to be laid aside, except such as are requisite to keep the bowels open, and with this counsel he consigns the patient to his fate!"

But this is not all; extraordinary as it might appear, it is but too common for the invalids themselves, when thus sent abroad, to apparently forget the very object for which they left their country, and to conduct themselves as if they were in the most robust health.

After giving some rules for the conduct of invalids whilst travelling in Europe, Dr. Clark treats of the particular classes of disease, in which a removal to another climate is beneficial.

Disorders of the Digestive Organs.—From the prevalence in this country, particularly in our large towns, of diseases of the stomach and bowels, and the contradictory advice and practice of physicians in them, especially in that most proteiform of all complaints, dyspepsia, we are glad to see any attempt to throw additional light on the subject. That much of our want of success arises from our "overlooking the real nature of the disease, and directing our efforts rather to palliate symptoms, than to remove the pathological condition on which these depend," there is but little doubt. But there is another reason, which operates far more extensively, and depending on the patients themselves—their vain endeavour to reconcile the indulgences of the table, with a restoration to health. Every practitioner, even of the most limited experience, must have discovered, that it is infinitely more practicable to induce patients to submit to a course of the most nauseating medicines, than to a rigidly regulated diet.

Our author is of opinion, that numerous as are the causes of dyspeptic complaints, they may be arranged under two great classes; those which exercise their influence on the general system, and those which act more immediately and primarily on the stomach. In the first of these classes he places all causes which debilitate the body and augment the nervous irritability; as, mental anxiety. the depressing passions, over exertion of mind, sedentary life, &c. These, however, are not as frequent or permanent in their action, as those which act in a direct manner; as errors in diet, the abuse of stimulating and purgative medicines, &c. The morbid conditions induced by these agents are also of two different kinds, either an irritated state of the mucous surface of the stomach of an inflammatory character, or a highly increased degree of sensibility of the nerves of the same part, accompanied, in most cases, with a loss of tone of the whole viscus. The former of these he terms gastritic dyspepsia, and the latter nervous. The symptoms which characterise these two forms, are often distinctly marked. In the gastric or inflammatory species, the pulse is very generally contracted and often quickened, especially after meals, and towards night. In the nervous kind, the pulse is seldom altered, but it is more constantly connected with head-ache, of a severe form. This head-ache is generally preceded by a sense of coldness and creeping on the surface, particularly in the extremities, in some cases amounting to shivering; there may also be nausea and vomiting; the pain is more intense on one side of the head than the other, and is usually most severe at the temples, though the upper and back part of the head are also often affected; the latter part is especially so, when uterine irritation is superadded The head-ache of gastritic dyspepsia is also acute, but is combined with a feeling of distention, and is usually situated in the forehead and temples. This pain comes on in most cases in the evening, or during digestion, whilst the nervous attack generally occurs in the morning, and when the stomach is empty.

> "Nausea and vomiting are more common in the gastritic, flatulence, vertigo, tinnitus aurium, deafness, dimness, and other affections of vision, in the nervous dyspepsia."

Dr. Clark's description of the state of the tongue and other symptoms in these two species of dyspepsia, is well drawn up, and merits close attention. Did our limits permit, we would willingly insert his account entire, but must content ourselves with a very brief and condensed sketch of his remarks. In gastritic dyspepsia, the tongue is redder than natural, especially at the extremity and on the edges; these parts are usually studded with small points of a still brighter colour. It is found towards the base, with large red papillæ projecting through the coating. When the stomach has been disordered for a long time, the tongue assumes a sodden appearance, and appears lobulated, from numerous fissures running over its surface; in this case it is clean or but partially furred, the uncoated portions having a glossy aspect. This state occurs most frequently in those who have lived full, and been in the habit of using drastic purgatives. In nervous dyspepsia, the tongue is generally pale or covered with a thin white fur, but rarely dry. In gastritic dyspepsia there is more tenderness of the epigastrium, and more thirst than in the nervous form. In the latter, the bowels are costive, and the urine is pale, whilst in the former, the urine is high-coloured.

Independently of particular symptoms, there are some general characteristics appertaining to each of these species.

> "The symptoms which accompany gastritic dyspepsia, are more fixed and permanent; they may be present in a greater or less degree, according to circumstances, but they are never absent. In nervous dyspepsia, on the contrary,

> the symptoms vary in a remarkable degree. The patient feels, at times, almost entirely free from them, and the functions of the digestive organs are performed with scarcely any indication of derangement, or all the symptoms are often greatly augmented, the patient being unable to assign any particular cause, either for their disappearance in the one case, or their increase in the other."

But the most common form in which we find this perplexing disease, is where the two species are either united, or alternate with each other, rendering a cure much more difficult to procure. The nervous dyspepsia, if long continued, most generally terminates in the gastritic; but this latter seldom changes permanently into the former. Dyspepsia may also be complicated with a deranged state of the chylopoietic viscera, thus still more obscuring the case, and embarrassing our choice of a curative plan—where it is simple, and especially in the early stages, when the stomach only is implicated, the cure is not difficult, provided the exciting causes are carefully guarded against. But in protracted cases, we have all felt how completely and wholly we have been baffled in our endeavours to afford relief, from a want of resolution and perseverance on the part of the patient.

The most common of the complications of dyspepsia, is that with affections of the liver. On this Dr. C. makes the following just and forcible remarks, which we quote entire, from the conviction that his observations are but too true.

> "But although a congested state of the vessels, (of the liver,) and a deranged condition of the secreting functions of this viscus are very constant attendants on dyspepsia of some duration, the liver is much more rarely diseased than is generally believed. The common expressions of the liver being 'affected,' 'touched,' &c., so generally employed in cases of dyspepsia, are to be regarded as words without any definite meaning being attached to them; and are too often, I fear, employed to conceal our ignorance of the nature of the disease. On this account, these indefinite expressions deserve condemnation, but I notice them here chiefly to deprecate the mischievous practice to which they too often lead. I allude to the indiscriminate use of mercury, in the form of calomel, or blue pill, and of irritating purgatives. This is a mode of treatment, which, notwithstanding its very general employment, I think I may venture to say, never yet cured a single case of dyspepsia; and I am satisfied that in this disease, it has been, and continues to be, productive of incalculable mischief. Indeed, I may safely affirm, that among the numerous cases of decayed constitutions, which I met with among dyspeptic invalids, the larger proportion had suffered more from calomel and drastic purgatives, than they would have done from the disease if left to itself."

We are too apt in this country to recur to calomel and the other mercurial preparations with an unsparing hand, regardless of the consequences resulting from their employment. Some of our practitioners talk of two scruple and drachm doses, given three or four times a day, as the only means of subduing bilious fevers, and seem to think that a severe salivation is a mere trifle.

A diseased state of the stomach, when it is of long standing, is also productive, or is the exciting cause of disorders of other systems; thus it may induce gout, rheumatism, deranged conditions of the circulatory organs, and especially of the brain. "Many of these symptomatic disorders simulate idiopathic affections of the same kind so perfectly, as to be often erroneously treated as such."

It would be interesting to enquire what secondary affections originate in each of the different diseased states of the stomach, and we know of no subject of investigation which opens a wider and more useful field, or would be productive of more advantageous results. It is however certain, that as the secondary disease becomes established, the primary affection is oftentimes mitigated and suspended. From these complications of dyspepsia, a state of the constitution ensues, in which the remedial indications seem almost to contradict each other. Thus, for instance, we may have an irritation of the mucous membranes, a congested state of the blood-vessels of the intestines, with a diminished circulation through the surface and extremities, and a morbidly sensitive state of the whole nervous system, with depression of spirits and great irritability of mind. There is irritation which requires soothing, an irregular distribution of the circulating fluids and of the nervous influence, which needs regulation, a diminished or disordered state of the secretions, which must be rectified, and this connected with a broken and shattered constitution.

Dr. Clark is of opinion that one of the best remedial measures in dyspepsia, whether in a simple or combined form, is a change of climate. But in adopting this plan, the peculiar character of the disease is to be strictly attended to, and to insure the full advantages expected from travel, or from a residence in the best chosen climate, urgent symptoms should be removed or alleviated, before the patient commences his journey; and he should, above all, have the nature of his disorder, and the principles upon which he should regulate himself, during his journey and absence abroad, fully explained to him. The want of a proper attention to these matters, is one great reason, why invalids affected with dyspepsia, are in so many cases, rather injured than benefited by travelling.

Dr. Clark's directions as to diet are very judicious, and are well suited to a majority of cases, though from the capriciousness of our digestive organs, it is oftentimes difficult, *a priori*, to determine what will agree with the stomach and what may prove pernicious. But, notwithstanding this peculiarity of constitution, it has been found that certain articles of food invariably aggravate the disease, and should be rigorously abstained from.

> "It should also be borne in mind, that on removing to a warmer climate, the sensibility of the system is increased, and it is, consequently, more easily excited by stimulants of every description. This remark is more particularly applicable to persons suffering from stomach complaints."

Wine should always be used with great moderation, and then of the lighter kinds, as claret and sauterne. No dessert should ever be allowed. Exercise should be habitually made use of, but not to such a degree as to produce much fatigue. Medicines should never be taken, except under the direction of a physician. Dr. C. says that ice and cold water, sipped slowly, are very beneficial in gastritic dyspepsia, provided there is not much disposition to head-ache or pain in the stomach. Fluids ought to be taken slowly and in small quantities by dyspeptic persons, and they should always be directed to masticate their food deliberately and perfectly; in fact, imperfect mastication is one of the most common sources of the disease.

Our author sums up his enquiries as follows:—

> "1st. Dyspeptic complaints are chiefly referable to, and have their origin in, two leading pathological conditions of the stomach—the one of an inflammatory, the other of a nervous character.
>
> "2d. These two states require two different modes of treatment, and are benefited by climates of a different character; a soft and mild climate being more suitable to the inflammatory form, whilst a drier and more exciting one is most beneficial in the nervous and congestive form.
>
> "3d. In complicated cases of dyspepsia, which are the most frequent, the method of treatment, both generally and as regards climate, must be regulated chiefly by the morbid condition which is the more predominant, and which influences the constitution most evidently. When a secondary series of disorders has been induced, these, as well as the hereditary disposition of the patient must also be taken into consideration in selecting a fit climate.
>
> "4th. Mineral waters are very valuable remedies in chronic disorders of the digestive organs, and will frequently effect cures after climate and suitable regimen have failed to do more than relieve.
>
> "5th. The advantages to be derived from change of air, climate, mineral waters, &c. depend in a great degree, upon the proper application of those agents to the nature and degree of the disorder, and upon the regimen to be followed by the patient during their operation.
>
> "Finally. No change of climate, or other remedy, can be made permanently beneficial, while the exciting causes of the disease, continue to be applied.

Altogether, the account given by Dr. C. of dyspepsia, and of the advantages to be derived from change of air and climate, is the best we have met with, and is calculated to be of great service in our treatment of this refractory complaint.

The next subject of discussion is that of consumption, a disease in which change of climate is considered to be more important and productive of better results, than in any other. It cannot, however, be denied, that there is no one in which the hopes founded in such a change, are more constantly disappointed. It is true, we have some few examples where beneficial effects have arisen from this plan of treatment, but they bear but a very slight proportion to those in which it has totally failed.

Pulmonary consumption may be considered as an endemial disease of our country, or more properly speaking of the northern and middle portions of it. It is one of the great outlets of life, along the whole sea-coast, from Maine to Carolina. Dr. Spalding, in his bills of mortality drawn up at Portsmouth, in New Hampshire, has fully proved that this disease is equally destructive, in a given time, in the New England states, with the highly inflammatory fevers of Georgia and Carolina.

In Philadelphia, the proportion of deaths by consumption to the whole number of deaths is 1 in 6; the deaths being to the population, as 1 in 48; hence 1 person in about every 300 is carried off by this disease each year. The highest number of deaths by consumption in one year, is 587, reported in 1826; the lowest number 216, in 1813. The whole mortality by consumption in twenty years, is 7977. If to this we should add the deaths from acute diseases of the lungs, it would amount to the grand total of 10,281 deaths in twenty years from disorders of the lungs. The greatest mortality occurred between the thirtieth and fortieth years of age.*

In New York and Boston, the proportion of deaths by this disease are much greater, and in London, it appears that the proportion is 1 in every 4 deaths.

The belief in the efficacy of change of air and climate in consumption, is of very ancient origin, and is general over the whole civilized world, and cases of failure are more commonly attributed to its being resorted to too late, than to any want of efficacy in the measure itself. Dr. Clark, however, is of opinion, that this mode of cure is, by far too much overrated; in this he is supported by Dr. Rush, who observes, "I do not recollect an instance of its having succeeded, except where it has been accompanied by exercise, as in travelling, or by some active laborious pursuit." But it would be impossible to attempt even to glance at the various opinions and reasonings of eminent authorities on this subject; we shall therefore confine ourselves to the remarks of our author.

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* Medical Statistics of Philadelphia. By G. Emerson, M. D. American Journal of the Medical Sciences, Vol. I. p. 116.

> "Respecting the treatment of consumption, we must admit the humiliating truth, that there is no reason to believe, that physicians of the present day are more successful than their predecessors were ten, nay twenty centuries ago."

Notwithstanding the general truth of this observation, as regards the cure of consumption, there is at the same time no doubt but that much has been done in elucidation of its pathology within the last few years. It is now clearly ascertained, that the immediate and essential character of consumption is the existence of tubercles. But we still know but little, as to what state of the system leads to the formation of these bodies; and until we can attain this knowledge, no sound or fixed rules can be established for the *prevention* of consumption.

> "I say prevention of consumption, because to cure it, even in its earlier stages, or in other words, to remove tubercles already existing in the lungs, is what we can scarcely hope to do."

As regards the proximate cause of tubercles, Dr. Clark thinks, that they are not generally the result of inflammation. We present his views without comment, though we cannot entirely yield our assent to their correctness. He asserts—

> "That in a healthy subject, tubercles are never the result of inflammation. When, therefore, these appear to be the product of inflammation, it will be found to be inflammation occurring in, and modified by a disordered state of the system of a peculiar kind. To this disordered state of the system, it behoves the physician to direct his chief attention. It is only by correcting it he can prevent the formation of tubercles, or in other words, prevent consumption." "But although I do not consider inflammation as the cause of tubercles, I agree with most pathologists in believing that it accelerates their progress."

There can be no doubt but that the occurrence of inflammation renders the disease more complicated in its symptoms, much more refractory in its treatment, and more rapidly fatal in its termination. In persons who are predisposed to tubercular disease, the occurrence of catarrhs and inflammations of the lungs, may keep up such a degree of irritation of the lungs, as to induce the formation of tubercles at an earlier period than would otherwise have taken place.

> "But the real cause of tubercles, I believe, with Dr. Todd and some other pathologists, to be a morbid condition of the general system, hereditary in some, but induced in others, and increased in all cases, by a series of functional derangements ultimately affecting the whole animal economy. This state of the system may be denominated tubercular cachexy."

We are unable at this time to follow Dr. C. in his account of the leading symptoms characterizing this state of the system, but as he himself observes, it is more easily recognised than described.

Under the general term of consumption, observes our author, we may comprehend three different forms or stages of disease; 1st, general disorder of the health; 2d, tubercular cachexy; and 3d, consumption, properly so called. In persons with a strong hereditary taint, the first stage is obscure and not easily observable, whilst in those cases where the predisposition is acquired, the degree of constitutional disorder which precedes and accompanies consumption is far more apparent. Cases sometimes occur, especially in young delicate females, in whom tubercular disease advances so imperceptibly that the patient is on the very brink of the grave before the friends are aware of the existence of danger. Dr. Clark combats the common idea, that in consumptive patients there is generally great serenity of mind, with buoyant spirits and a strong hope of recovery; this he says occurs in the purer and less complicated cases of hereditary consumption, but is by no means a common attendant on the other forms, and more especially where there is much disorder of the digestive organs.

Among the causes of the constitutional disorder which precedes, and induces consumption, hereditary predisposition certainly holds the first rank. By this term hereditary predisposition, Dr. Clark means

> "A peculiar condition of the system, depending upon its original conformation and organization, and derived from the parents, which renders the individual more susceptible of, or more liable to lapse into certain diseases, than other persons endowed originally with a more healthy organization. It does not follow, however, as a necessary consequence, that a child who is born with a predisposition to a disease must be attacked with that disease."

There is also another mode in which a predisposition to consumption may be transmitted by parents to their offspring, this is the deteriorating influence of other diseases, as gout, dyspepsia, &c. But consumption is also induced, and perhaps in a majority of instances, by the operation of external or incidental causes, so that no person, however healthful his original organization may have been, is totally exempt from the liability to this disease.

Generally speaking, all causes which lower the tone of the bodily health, predispose to consumption. Of this kind are sedentary occupations, unwholesome or improper diet, long-continued functional disorders of most of the organs, and especially of the digestive. The influence of the depressing passions is also a common predisposing cause, some writers, as MORTON and LAENNEC, considering them as the most frequent of any. These causes may act at any time during life, but our author thinks that the origin of the constitutional disorder we have been speaking of, is in many cases to be traced to the mismanagement of children, for the seeds of disease, which will ripen at a later period of life, are but too frequently sown during infancy and childhood. We have not space to follow Dr. Clark in his able view of the various causes which tend to propagate or heighten a predisposition to consumption; the following remark, is, however, too valuable to be passed over without notice.

> "It matters little, as to the result, in what organ the mischief begins. The first inroads upon the heath, however, are generally made through the organs occupied or immediately connected with the supply and waste of the system—those organs which perform the important function of digestion and assimilation, and those whose more obvious office is to remove the effete and waste matter from the system. Thus the digestive organs and the skin generally exhibit the earliest symptoms of disorder; and in these, in a very large proportion of cases, may be observed the first links of the chain of morbid actions which undermine the general health and ultimately end in tubercular cachexy."

It is during this forming stage of consumption that a change of climate will prove beneficial, but unfortunately it too often happens that the period of functional disease, already alluded to, is permitted to pass before either the patient or his friends are aware of the extent of the danger. Thus, for instance, but little is apprehended until symptoms of irritation or impeded action in the lungs appear, such as cough, shortness of breathing, pain or a sense of stricture on inspiration, or spitting of blood; but alas, these symptoms are sure indications that tubercular disease is already established. When tubercles are formed, the circumstances of the patient are materially changed, but even now removal to a warm climate may still be attended with beneficial consequences, as contributing to improve the general health, and to prevent inflammatory affections of the lungs and bronchia. But where the disease is fully established, Dr. Clark is most decidedly opposed to sending patients abroad.

> "Under such circumstances," says he, "the patient and his advisers will therefore act more judiciously by contenting themselves with the most favourable residence which their own country affords, or even by awaiting the result amid the comforts of home, and the watchful care of friends." "There are, however, chronic cases of consumption, in which the disease of the lungs, even though arrived at its last stage, may derive benefit by a removal to a mild climate."

This is when the disease is induced in those who are little disposed to it constitutionally, and in whom it usually occurs later in life than when hereditary, or in those rare cases where the progress of the disease in the lungs has been arrested by nature, but in which a long period must elapse before the work of reparation is completed.

When removal to a milder climate is decided on, it becomes a question of no slight importance as to which is the best. Dr. Clark thinks that which is best suited to consumptive patients generally, is the island of Madeira; one great advantage this place possesses over most others, is that the patient may reside there during the whole year.

There is yet another measure in the treatment of consumption, which requires some notice, it having been recommended as a substitute for change of climate, this is keeping patients in rooms artificially heated and maintained at a regulated temperature. Of this plan Dr. C. does not approve, more especially in the incipient stages, though he thinks that in the advanced stages, and where a removal would be useless, such a measure may prolong life.

With respect to the time a consumptive patient is to remain in a mild climate, in order to obtain permanent advantages, it must be obvious that no general rule can be given, it must depend wholly on the benefit received, and the degree of the derangement of the respiratory organs.

Dr. Clark sums up his observations on consumption, with the following corollaries:—

"1st. That tubercles in the lungs constitute the essential character and immediate cause of consumption.

"2d. That tubercles originate in a morbid condition of the general system.

"3d. That such a state of system frequently has for its cause hereditary predisposition; in other instances, it is induced by various functional disorders, while in a third class of cases, (perhaps the most numerous,) it arises from the conjoint effects of both these causes.

"4th. That consumption is to be prevented only by adopting such means as shall counteract the hereditary predisposition, (where it exists,) and maintain the healthy condition of the various functions, from infancy to the full development of the body.

"5th. That in the general disorder of the health which leads to tubercular cachexy, in tubercular cachexy itself, and even when tubercles are formed in the lungs, unattended with much constitutional irritation, a residence in a mild climate will prove beneficial; and also in cases of chronic consumption, at any stage, when the lungs are not extensively implicated in tubercular disease, and when the system does not sympathize much with the local disorder.

"6th. That in cases of confirmed consumption, in which the lungs are extensively diseased, and when hectic fever, emaciation, and the other symptoms which characterize its advanced stages are present, change of climate can be of no service, and may even accelerate the progress of the disease.

"7th. That climate, to be effectual in any case, requires to be continued for a considerable time: in most cases for years."

Chronic Diseases of the Larynx, Trachea, and Bronchia.—Although change of climate fails in producing beneficial effects in phthisis pulmonalis, there can be no doubt of its efficacy in irritations of the mucous membranes of the air passages. This is exemplified in the remarkable effect produced on common colds, even by a journey of a few days. In adopting this measure, however, Dr. Clark very justly deprecates sending patients from home before all acute inflammation is subdued. A journey at the commencement of a cold, or indeed of any other irritation of the trachea or bronchia, generally increases it; but if, on the contrary, the acute period of the disease has passed, change of air is perhaps the most effectual remedy we can apply. There is another point in connexion with this class of diseases which must be borne in mind, viz. the state of the digestive organs. Many, perhaps we may say a majority, of the bronchial irritations are sympathetic of some disorder of the stomach; at all events, these two pathological states coexist in a large proportion of cases. Hence, we shall make but little progress in the cure of the tracheal and bronchial diseases, until the irritation of the digestive organs is overcome.

Dr. Clark gives a decided preference to the climate of Madeira in this class of affections, especially when they occur in young persons disposed to phthisis. The pine barrens of Georgia and Carolina are also well calculated to benefit chronic disorders of the air passages. In the more protracted and obstinate cases, however, a course of mineral waters will often prove of the greatest utility, and materially increase the good effects of a residence in a mild climate. There are several mineral springs on the continent of Europe, which have high reputation in this class of diseases, such as Bonnes, Cauterets, Ems, and Mont d'Or. A selection of the particular mineral water must depend upon the nature of the case, and Dr. Clark gives a short sketch of the benefits to be expected from a residence at the principal mineral springs in the southern parts of Europe. Sufficient attention has not as yet been paid to those of our own country, to enable us to decide with certainty as to the relative advantages to be derived from a visit to them. Judging, however, from what information we possess on the subject, we should decidedly recommend those in the southern and south-western sections of the United States, from their combining all the benefits to be expected from these agents, added to their being situated in a warm climate.

Asthma.—In no disease perhaps is the effect of change of climate so conspicuous or powerful as in asthma. Taking the disease generally, it may be stated that a removal is beneficial; but the degree of relief, especially in complicated cases, depends on the climate being suited to the particular case or complication. Our author gives the following forms, as requiring particular attention:—1st. Pure nervous asthma. 2d. Symptomatic nervous asthma. 3d. Humid asthma. 4th. Cardiac asthma. In this latter form, a voyage is much preferable to a land journey.

Gout.—Dr. Clark is of opinion, that the early stages of gout, where the patient possesses the resolution to adhere to such a mode of living as is calculated to remove the gouty diathesis entirely, are much benefited by a lengthened residence in a mild climate. In confirmed cases of the disease, where the joints are permanently affected, he also thinks that a mild climate improves the general health, and prolongs the interval between the paroxysms.

Chronic Rheumatism.—It is but too well known, that rheumatism often resists the best directed efforts of medicine, for, although we are able to remove its inflammatory or acute stage, it frequently torments the patient in a chronic form during the remainder of his life. In these cases, a removal to a warm climate sometimes acts like a charm, and indeed is the only measure which in the present state of our knowledge we can say affords a prospect of recovery. It should always be remembered, however, that rheumatism is complicated with, and kept up by a disordered state of the digestive organs, without the removal of which, the affection of the joints can scarcely be cured.

We shall not attempt to analyze the remaining sections of Dr. Clark's work, as they contain little that is interesting to medical men in this country. In concluding this brief analysis, we cannot avoid reiterating the high opinion we entertain of the value and practical utility of our author's observations, and can safely recommend it as the best guide book with which we are acquainted for all invalids who intend to visit the milder portions of Europe; and, although it is necessarily very local in its directions, it will well repay an attentive perusal from physicians in this country. R. E. G.

ART. XVIII. *De la Percussion Médiate et des Signes obtenus à l'aide de ce nouveau moyen d'exploration, dans les Maladies des Organes Thoraciques et Abdominaux.* Par P. A. PIORRY, D. M. P. &c. Paris, 1828. 8vo. pp. 336. Pls. lithogr. 2.

THE work before us may be regarded as one among the earliest and most valuable fruits of the seed first sown by the German physician AVENBRUGGER, and subsequently cultivated with such gratifying success by the illustrious CORVISART, LAENNEC, and their numerous disciples. Through the zeal, skill, and assiduity of these great benefactors of scientific medicine, the diagnosis of diseases of the chest was rendered easy and almost unerring; repeated examination of sound and diseased bodies, followed by carefully conducted dissections of the dead, enabled them, especially Laennec, to distinguish with wonderful accuracy the actual condition of the thoracic organs in the living body and finally to establish a system of rules or principles by whose aid, individuals devoting to the study a proper degree of attention might attain an equal accuracy and precision in similar investigations. Yet it is unfortunately true that suffering humanity has not, even to the present hour, received the full advantage of the improvements introduced by these celebrated men. Aversion to change of opinion, prejudice against every appearance of innovation, and a profound apathy concerning the real nature of proposed improvements, still continues to withhold physicians from making the enquiries and obtaining the experience necessary to the successful employment of these admirable aids to correct diagnosis. So prejudicial is the influence of such examples, that even youthful members of the profession are found willing to evade the supposed extra labour demanded for the acquisition of the requisite knowledge; and perhaps it will not be until the community becomes thoroughly acquainted with the importance and indispensability of such skill, that mediate auscultation and percussion will receive universal and profound attention from physicians.

If these modes of ascertaining the conditions of organs in health and disease, were not based upon physical laws as well ascertained and established as any others belonging to the circle of human knowledge—if their successful application depended upon any accident or trick, and if the results obtained by all equally experienced enquirers did not closely correspond, we might feel surprise that intelligent and benevolent physicians should refuse to be at the trouble of learning a new art of research. But resting as they do upon laws fixed and unchanging, requiring nothing more than diligent application for their successful employment, and producing results most satisfactorily accordant with the experience of others or with our own previous examinations, we know not how a candid mind can hold itself free from imputation of guilt, which neglects to attain a competent acquaintance with modes of investigation so essential to correct treatment of disease.

Immediate or direct percussion, as introduced by Avenbrugger and Corvisart, is attended by some inconveniences, and liable to various objections in peculiar cases; it has consequently generally given place to the use of the stethoscope or mediate auscultation, which was so highly improved in its application by Laennec. But all those who have adopted the stethoscope have felt the advantage of using both methods, where it is practicable, and it was with the view of rendering percussion as generally useful and certain in its results as mediate auscultation, that Dr. Piorry with a laudable zeal devoted himself to the experimental researches which have eventuated in the present treatise on *mediate* percussion. In these studies he has had the assistance and advice of many distinguished practitioners, and on his own part displays a calm, candid, and philosophical spirit, which proves him to have been excellently adapted to conduct such observations. "If the facts, I publish," says he, "have not all the importance I attach to them, perhaps they will not be entirely lost, since experiments made with exactitude and candour are always of some value." Neither does his zeal for the advancement of a favourite pursuit, lead him to prefer mediate percussion to the exclusion of the stethoscope, or indeed of all other modes of examination. "To employ one mode of exploration to the rejection of others, would be proof of bad judgment. Such was not Laennec's conduct; incessantly approximating the results of percussion to those obtained by auscultation, he drew the happiest consequences from this parallel. Seeking to imitate him, I do not propose mediate percussion as an exclusive method of diagnosis, but think that it presents an additional way to the discovery of the actual condition of organs; and can we neglect any light, however feeble, in a difficult art, which is so closely concerned with the health and life of men?"

In his second chapter, Dr. Piorry treats of *direct* percussion, and specifies the inconveniences to which it is subject, and which are so serious and numerous as greatly to circumscribe its application. We do not think it necessary to repeat the observations made by him on this subject, as he has clearly established that *mediate* percussion removes all these difficulties and objections, and leads to far more certain and satisfactory conclusions. The substance of his remarks on mediate percussion, the instruments necessary to perform it, and the rules to be observed in its use, we shall now condense from the work.

Mediate percussion consists in the impulsion given to a solid and sonorous body applied upon an organ or over a cavity, with a view of obtaining a sound in relation with the physical condition of these parts. To obtain such results, we place solidly over the part to be explored, a thin plate of any hard substance, wood, metal, &c. upon which percussion is made. After various experiments, Dr. Piorry found that ivory united all the requisite qualities, was not subject to be warped like horn, and was free from that tinkling produced by metal, which is analogous to sounds furnished by some of the viscera subjected to mediate percussion. The instrument, made of ivory or other material, is called *plessimeter*, (from πλησσω, I strike, or πληξισ, percussion, and μετρον, measure,) and the last modification of form adopted by the author is the following. A flat circular plate of ivory, presenting at two extremes of one of its diameters a projection four lines wide and four high; this projection, concave externally to suit it to the convexity of the finger, is placed perpendicular to the surface of the plate. It has the advantage of being easier steadied upon the surface than any other, augments the surface to be percussed, and facilitates percussion. He also devised a plessimeter to be attached to the common stethoscope, which was also of ivory, but in some cases this could not be used, as in peritonitis, pleurodynia, &c. where great pain results from the touch. The larger instrument may be used in these cases without injury. Other physicians have varied the form and substance of the instrument, but it is needless here to particularize unimportant changes.

It was not until after numerous experiments made in the anatomical theatre, in hospitals and private practice, that our author began to arrive at very satisfying results; nor was it until he discovered that his slow progress was owing to his own unskilfulness, rather than any defect in the method, that his researches tended to establish any important practical conclusions. He explored badly; did not apply the plessimeter with sufficient steadiness, and obtained variable sounds proportioned to the varied position of the instrument.

By adopting the following general rules the difficulties and uncertainties disappeared, and the advantages of this mode of exploration augmented with the increased skilfulness of its application:—1st. the patient's position must be varied according to the organ explored, and the sort of malady we seek to distinguish; this position is indicated in the proper place, when speaking of the mediate percussion of the different organs and cavities. In general, as in using Avenbrugger's mode, or direct percussion, the trunk should not recline on too soft a surface, and strict silence is to be preserved among the bystanders. Often the position first adopted should be continued throughout the examination, as when there is no reason to believe in the existence of a collection of fluid. Again it may be necessary to change the attitude of the patient several times, as when we endeavour to discern whether liquids or moveable bodies are contained within a cavity or not. This last mode of scrutinizing is fruitful in practical results, and to avoid error may be well repeated frequently.

To obtain certain results from mediate percussion, it is necessary that the plessimeter placed upon the regions to be studied, should be lightly applied and steadied in such a manner as to form (so to speak) one body therewith. Sometimes we apply the instrument upon the naked surface, which is to be preferred, if the condition of the patient will allow and the disposition of the part to be explored require it; sometimes to remove the inequalities of the surface it is necessary to interpose some old linen or cotton; on other occasions we have to leave the clothing upon the chest to save the patient from chill.

When we percuss a painful region, and when this mode suffices to appreciate the physical condition of an organ, we are content to keep the instrument fixed by touching the integuments slightly with it. Whenever we examine a cavity with soft and extensible walls, a certain degree of pressure is to be exerted in order to give effect to the examination of the deep-seated viscus. In particular cases a very considerable force is necessary in making this pressure. It is sometimes necessary to keep the instrument invariably fixed, as when we desire to appreciate the sound of a single viscus; again, we glide it lightly over several regions, in order to compare together the sounds furnished by several organs.

The plessimeter being steadied by the left hand, percussion is performed with the pulp of the right fingers in the following manner:—The nails being pared close enough to prevent them from projecting beyond the surface of the pulp, as they otherwise sensibly modify and interfere with the results, the blow is struck upon the instrument with the end of the index finger alone, or with the index and next fingers united; sometimes even a third is added for the purpose of obtaining sound from a large surface. The part of the pulp which is nearest the extremity of the finger should, alone, strike the plessimeter, the sound being less pure in proportion as the contrary occurs. The shock ought to be clear; therefore the blow being struck the finger should be immediately withdrawn. It should be rapid in order that vibrations may follow. We vary its force according to the volume of sound we wish to produce, the degree of sensibility of parts and the breadth of the plessimeter we employ.

So far from one percussion being sufficient, it is often to be repeated several times successively, to guard against erroneous impressions from a single sensation; and in general to judge of the sort of sound produced, it is well to reiterate the percussion sometimes forcibly and sometimes slightly.

Our author assures us that the objections made against direct percussion are entirely removed by the use of the plessimeter. Even when the teguments are very sensible and irritable, or the patient is exceedingly impatient, it may be used without increasing suffering, or causing injury. Yet it must always be remembered, that mediate percussion, as well as mediate auscultation, and every other mode of research, to be well known, and advantageously used, requires careful study, and continual practice. For want of the facility which can only be acquired in this manner, we find many individuals unable to derive advantage either from the stethoscope or plessimeter.

Mediate percussion over the different regions of the abdomen, promises the most valuable results, while direct percussion of the same parts is altogether unproductive of sound. The plessimeter here furnishes a sort of solid wall to the soft coverings of the viscera.

Each organ studied with the plessimeter has a special sound of necessity, since the nature and pitch of the sound produced, depends upon the density, capacity, and form of any instrument. A solid organ, like the liver, will give a dull or flat sound; a hard one, as a bone, will furnish a clearer note; the stomach, much distended with gas, causes a clear resonance; the small intestines, much narrower, and more retracted, produce less sound than the cœcum distended with air; the lungs, filled with vesicles separated by partitions, give a cavernous reverberance different from all the others, and the same may be observed successively of other parts. The sounds obtained will still vary according as the organs contain fluids or not, mixtures of fluid and gas, or the latter alone; hence, in studying mediate percussion it is necessary to establish a sort of scale of sonoriety between the different organs, and we may represent these degrees by letters or cyphers. So precise are the results furnished by mediate percussion, that we can determine upon a person in health, in sickness, or upon a dead body, the points to which certain organs correspond; and mathematically measure their dimension through the abdominal parietes. This is particularly true of the liver, spleen, stomach, cœcum, and distended urinary bladder.

The sounds produced by mediate percussion offer infinite varieties, referrible, 1st, to the species of organ explored; 2d, to the different conditions of the organ; and 3d, to the peculiarities of the individual examined. But the practical results depend less upon the fundamental character of the sounds, than upon the comparison established, in the same individual, between the sounds furnished by different organs. In one subject the cœcum gives a much clearer sound than in another; but in both, in a state of health, we distinguish with equal ease the cœcum from the small intestines, because the cœcum always gives a more tympanic sound. The same considerations are applicable to the other viscera. In general the sound produced by the plessimeter varies from *more* to *less*. The former is given by the most hollow organs, containing the greatest quantity of gas, the largest, and most superficial seated. The latter, or lesser sounds, correspond to the least hollow parts, the most dense, thick, and deeply lodged. The stomach, cœcum, and buccal walls, distended with air, constitute the first term, while the thigh, and fleshy part of the arm, form the last; certain cases may be met with in abnormal conditions, above and below these limits. Peritoneal tympanitis gives a clearer resonance than the stomach distended by gas, and the flat, dull sound, arising from a vast encephaloid or scirrhous tumour, is more marked than that of the arm or thigh.

Certain sounds obtained by mediate percussion have sometimes an entirely peculiar and proper character, to distinguish them from the preceding. Some are produced by applying the plessimeter over organs naturally very hard and sonorous, as the bones; by applying the instrument upon the inner face of the tibia, and percussing, a correct notion of this peculiarity may be formed; other more important sounds consist in a trembling or oscillation, which is very remarkable, and has some relation to the metallic tinkling of Laennec. It may be designated by the term *humoric* resonance. Being more acute and harmonic than other sounds, considerable skill is required to distinguish it. It occurs under the following circumstances:—1st. When a hollow organ is partly filled by gas, and by serosity, as frequently is the case with the stomach. 2d. When a viscus, forming a cavity with thin walls, floats in a fluid, which is sometimes remarked in ascites. 3d. When two hollow organs are in contact, one containing a liquid, and the other gas; thus the distended urinary bladder may be in contact with the intestines containing elastic fluids. 4th. When air escapes with difficulty through a narrow opening from a large cavity, which appears to take place in certain cases of tuberculous caverns. Humoric resonance is most commonly met with at the point where liquids and gases are in contact; it is thus that the superior layer of fluid contained in the stomach, touching the gas contained in this viscus, the surface of the serosity in ascites touching the intestines, &c. give the humoric resonance.

Finally, there is another much more singular sound which our author has but very rarely observed, and it is impossible to express the sensation it causes in words. It seems to refer itself at the same time to the percussing finger and the ear: the finger feels a sort of elastic resistance which repels it, and that several times successively; the ear hears a sound which differs from, though somewhat similar to, the humoric resonance. Every thing leads to the belief, that in the cases it was met with by our author, the cause of it was hydatid tumours.

Although it is difficult to trace a precise limit between the sounds in relation to their degree and nature, it appears useful to establish a sort of scale of differences, and for this purpose it is necessary to give them names, or to designate them by letters. To render the study of mediate percussion easier, the author has endeavoured to designate them by names which refer them to healthy organs, as may be seen in the following table:—

F.	Femoral sound	Resulting from mediate percussion	Of the Thigh.
J.	Jecoral sound		Liver.
C.	Cardial sound		Heart.
P.	Pulmonal sound		Lungs.
I.	Intestinal sound		Small intestines.
S.	Stomacal sound		Stomach.
O.	Osteal sound		Bones.
H.	Humoric sound		Organs filled with air and water.
Hy.	Hydatic sound		Hydatid tumours.

Various intermediate sounds exist, but this inconvenience attaches to all our divisions, to which natural phenomena but partially accommodate themselves. To express these variations as near as possible, the author says, such a region furnishes a sound between S. and I. (between stomacal and intestinal,) to express that the sound is less clear than that to which the stomach inflated with air would produce, but more drum-like than would be caused by percussion over the small intestines. As variable sounds may be combined with different degrees of sonorousness, he endeavours to express it by a similar method; thus when it is said that a certain part furnishes a sound between I. and H. (intestinal and humoric,) it is understood that the intestinal and humoric resonances are combined.

The next part of our author's labour, is to divide the trunk into various regions for the greater convenience of exploring the states of the organs. As we are more desirous of imparting a correct notion of the principles upon which mediate percussion is to be practised, we must refer the reader to the original for such details. Instead of following him through these divisions, we shall next attempt to sketch some of the conditions in which mediate percussion promises direct advantage to the physician.

The cavity of the thorax comprising various organs differing in density as in office, in a state of health yields clear indications to the student of mediate percussion of the situation and actual condition of its contents. When by the occurrence of morbid actions, changes are produced in these parts either as to their density, the quantity or nature of their fluids, or the functions they discharge, mediate percussion discriminates them with an ease and certainty proportioned to the familiarity and accuracy of our knowledge of them in their healthy state.

In examining the walls of the thorax, it may be our object either to appreciate the nature of their lesions, or to explore the deeper seated viscera, by thus avoiding the inconveniences that might result from direct percussion.

Mediate percussion will distinguish the nature of tumours developed in the walls of the thorax; indicates the difference between emphysema of the cellular tissue of the walls of the chest and œdema, by the greater clearness of sound in the first instance; a hernia of the lungs however small by its highly marked and very superficial pulmonal sound, and a hernia of abdominal viscera between intercostal spaces will be equally obvious from the peculiar sounds belonging to these organs.

The pleura is subject to very few changes discoverable by mediate percussion, and the researches of MORGAGNI, BICHAT, LAENNEC, ANDRAL, &c. prove that thickening of the pleura is very rare, if it occur at all; and in cases where it appears to be thus changed, it is owing to a pseudo-membranous layer, or effusion deposited upon the surface, or to the development of miliary granulations thereupon. Cartilaginous or osseous degenerations of the pleura, most frequent at the summits of tuberculous lungs, sometimes acquire considerable thickness.

The serosity secreted by the pleura may be increased in quantity, and according to Laennec, this takes place in a constant manner when the pleura is inflamed; several other authors do not believe this augmentation to be constant, but regard it as incomparably the most frequent case, and do not admit of a pleurisy without effusion, unless as an exception to the rule. This serosity varies in consistence with the different degrees and duration of pleurisy. The collection is sometimes free, sometimes circumscribed by adhesions, in various parts of the chest. But wherever seated, the lung or lungs must be compressed, and if the effusion be very large the neighbouring organs may be displaced. Effusions of blood may occur within the pleura, and the fluids of pulmonary abscess or hydatid tumours may be poured out into it, in consequence of ulceration; or atmospheric air may be introduced by means of an opening through the thoracic walls, or through a laceration of the lung, from whatever cause.

These observations are followed by a statement of numerous experiments, relative to the exploration of the pleura in healthy and morbid conditions, and from the whole, the following corollaries are deduced. 1st. In natural hydrothorax whether observed in the living or dead body, as in artificial effusions into the pleura after death, if the pleural cavity be free, the fluids occupy the declining part of the chest. 2d. A level line most commonly, if not constantly separates the points where the fluid is found from those where it does not occur. 3d. The fluid forming a thin layer towards its superior surface increases in thickness as it is examined lower down. 4th. When the quantity of serosity is so great as to fill the pleural cavities no level takes place. But then the extent of flat sound is an excellent sign of the acute state; for it is very rare for a peripneumony to affect the whole of a lung. 5th. The sound given by the thorax at the points where slight pleuritic effusions exist is not flat; it generally holds the mean between the sound produced by the heart, and that furnished by the lung. It approaches the first more than the second in proportion to the amount of effusion. 6th. If the quantity of fluids be so great as to occupy the entire cavity of the pleura, the sound approaches that produced by the liver. It appears, however, that this organ uniformly gives a more marked flat sound than that observed in hydrothorax. 7th. If the lung be healthy, the sound obtained above the effusion is similar to that given by the respiratory organ in the normal condition. 8th. The sound below the effusion presents the characters already indicated 5 & 6. 9th. It is upon a level line that these differences of sound subsist. This line is parallel to the axis of the trunk when the patient is lying down; perpendicular thereto when he is in the erect position; the resonance is obscure behind, and clear in front, if the patient be placed upon his back, and the contrary if lying upon the face. It is dull below and clear above, when the subject is seated. 10th. When there is very little fluid effused it is to be sought for posteriorly and upon the sides of the vertebral column; the patient may be placed in various attitudes to favour the research.

The author accounts for some differences between his conclusions and those of Laennec, by referring to the fact that this great observer made use of *direct* percussion, which certainly will not indicate many of the peculiarities mentioned in the foregoing corollaries. But the aid of the plessimeter, or *mediate* percussion, renders the slightest of these variations so obvious, as to enable the examiner to distinguish them with ease. Notwithstanding all that has been done, it is certain that the diagnosis of pleuritic effusions still remains doubtful, and this should urge upon practitioners, the necessity of using and perfecting every mode of investigation capable of leading to more positive decisions and advantageous treatment.

In treating of the application of mediate percussion to diseases of the lungs, our author premises a concise sketch of the respiratory organs in a state of health, and then describes the changes to which they are most liable from morbid action. The 1st is, variation in volume, generally dependent upon the state of the adjacent organs. Extent of thoracic cavity, dimensions of the liver and heart, distention of the stomach, pleura or pericardium by fluids or gas may all cause variation in the volume of the lungs, which are occasionally reduced to a very small mass, or considerably expanded; their texture may be denser or rarer, and in numerous cases extensive caverns are excavated in their substance. 2d. The lung may augment in density from various causes:—it may be the effect of simple cadaveric engorgement occuring in the last moments of life, or immediately after death This alteration is altogether dependent upon the laws of gravity, whether it take place in the air cells, or which is more probable, into the cellular texture uniting the lobules. If this accumulation is formed exclusively of serosity, œdema of the lung ensues, and in debilitated subjects, it occurs nearly as in dying individuals; air almost always remains in several bronchi and many vesicles of the engorged texture, &c.

Inflammation increases the density of the lung, but as this occurs during life, the disease does not uniformly occupy a depending part, and when it does thus happen, the point where the healthy texture is separated from the diseased, is not a right line, but follows the inequalities of the different lobes or lobules; frequently the parts placed below the inflamed portions are not affected by peripneumonic engorgement. Here there is less of air in the vesicles and small air tubes, because the fluids are first deposited in the last divisions, and must push before them and compress the gases they contain.

These fluids being more viscous than in cases of simple engorgement, adhere to the surface of the cavities containing them, which prevents their easy descent to the most depending part. This more especially is the case, if they be condensed by absorption, evaporation, or vital actions taking place, or the texture of the lung itself acquires greater density by the inflammatory process. It is to all these causes combined that the very great density of the lung is to be attributed, when peripneumony has extended to its second or third degree, yet in all these cases, it very generally is the fact, that the larger air tubes still contain air. Engorgement may produce pneumonia in subjects which continue to live for a certain time; and pneumonia on the other hand by softening the textures, disposes still more to engorgement. Hence these two states are found combined in many cases; and in the dead subject as in the living patient, no striking difference can be established. The same may be said of pulmonary œdema. Hæmorrhagic infiltration converts the lung into a hard texture, which no longer contains air. Encysted tumours have been observed, though rarely in the parenchyma of the lungs. Lastly, the density of the lungs may be augmented by tubercles, which in various conditions form considerable masses, and occupy various extents of the pulmonary structure; they occur frequently at the superior part of the lungs, more commonly on the left than right side; while peripneumony according to Laennec takes place more frequently in the inferior lobes. Attempts have been made to derive advantage from this fact relative to the etiology of phthisis. Dr. Andral, however, has proved that pneumony of the superior lobe is far from being of such rare occurrence as supposed. Tubercles are sometimes superficial, and at others deep-seated like other accidental productions found in the lung.

3d. The density of the lungs may be diminished, either because the bronchi are more than usually dilated to their fourth and fifth divisions, or even as far as the aerial branches which are the seat of alternate expansion and contraction; or, the air vesicles may be dilated, constituting the *pulmonary emphysema* of Laennec. These cells may become as large as a cherry-stone, though this rarely happens, and scarcely without rupture of the septa of cells. Sometimes the emphysema occupies both lungs, or one; a whole lobe or some part of it. In cases of this nature, a given volume of pulmonary texture contains the most of air, and the least of solid parts. A circumscribed dilatation may take place in an air tube forming a cavity sufficiently large to contain a nut; around such an excavation the texture is crepitant. A vast abscess may be formed in the centre of hepatised masses of lung, and if this be emptied by expectoration, the large cavity it leaves is surrounded by a hard texture impermeable to the air. A cavern following a pulmonary tubercle, may be almost immediately surrounded by a slight and crepitating texture: this however is rare, and most frequently very dense tuberculous masses circumscribe the cavity, or the pleura, become more resisting, surrounds it upon other points. The lung may be partially gangrenous, and when the part destroyed has softened and been thrown off, it leaves a cavity surrounded with a texture rendered denser by the inflammation which has occurred. In all cases of excavations, they may contain fluid, or gases, exclusively, or both combined; and may or may not communicate with the bronchial cavities.

Our author next relates various experiments made upon dead, and living bodies in health and disease, relative to the sounds afforded in different states of the lungs, whence he deduces the subjoined corollaries:—

The points where the lungs are more dense than in the healthy state, give usually a flat or dull sound. In cadaveric infiltration the flatness or dullness closely approaches that of the region of the heart, and is found in the part of the lung most dependent, during the time immediately preceding and after death. In general it is upon a nearly level line, that the differences between the sound and engorged lung are perceived. In engorgement the place where the resonance changes character, does not vary with the attitude of the patient, which distinguishes this condition from pleuritic effusions. In peripneumony it most often happens, that a moderately flat sound is not exclusively obtained towards depending parts, as it is found at other points of the chest. When inflammation is exclusively confined to the inferior part of the lung, it very rarely happens that the superior surface is on a level; as is most common in cadaveric engorgement. The plessimeter distinguishes these inequalities. This difference and rather more dullness of sound in peripneumony than in cadaveric infiltration or œdema of the lung, are very good means of distinguishing these different states. Similar considerations are applicable to pulmonary apoplexy.

A dull or flat sound obtained in the supra clavicular and anterior pulmonary regions, (while the rest of the chest gives the pulmonal resonance,) affords a very constant character of tubercles. Where considerable tubercular masses exist, the sound approaches rather to the pitch of J. than C. But it must be remembered that hepatization of the superior lobe of the lung, is more frequent than is commonly supposed. A degree of sound less clear upon one side than the other, observed habitually above and below one of the clavicles, may lead us to suspect numerous miliary tubercles. When a duller sound is heard throughout the whole of one side, than the other, or very marked differences of sound at different points of the same side, without coexistent functional signs of peripneumony, it may lead to the belief that tubercles are generally scattered through the lungs, and separated by a texture more or less healthy.

The following are Dr. Piorry's conclusions, from all his observations and experiments, concerning the sounds furnished, when mediate percussion is applied to the investigation of cavities in the lungs.

1st. At the point corresponding to large, empty, superficial excavations surrounded by hepatized or tuberculous portions of lung, themselves circumscribed by healthy pulmonary texture, a tympanic sound (S. or I.) is obtained, whose intensity is proportioned to the dimension of the cavern. This sound will be easiest found during a strong inspiration; around the point where it is obtained, the sound is near C. or J. and the P. resonance circumscribes the space where these last sounds are heard.

2d. In similar excavations surrounded by healthy pulmonary texture, in dilatation of the bronchi for instance, a tympanic sound whose pitch ought to correspond to the dimension of the cavern probably exists over, and a pure P. sound should be heard around it.

3d. When the excavation is large, deep-seated, and covered by healthy pulmonary cells, it may happen, that over the point corresponding to the cavity, the sound S. may be obtained, mingled with P. In such case, if mediate percussion be performed with much lightness, it should give the pure P. sound; if on the contrary it be executed with greater force, the cavernous reverberance should be heard. In slight excavations the tympanic sound is not perceived.

4th. If the excavation be half filled with fluids and gas, and if there be free fistulous communications with the bronchi, the resonance H. is produced; this may also occur when the cavern is deep-seated.

5th. The H. sound may be heard when there are small excavations; its intensity is then proportioned to their distance from, or nearness to the surface.

It would be to us a task as pleasant as profitable, to continue to follow our author in his researches concerning the diagnosis of diseases of the heart, stomach, liver, and abdominal organs generally, but we have already extended this paper to a sufficient degree; more especially, if we have succeeded in exciting the reader's curiosity to examine Dr. Piorry's interesting work for himself. This examination made in a spirit of candour, would, we feel persuaded, be sufficient to determine most persons to adopt his mode of exploration, so far at least, as to decide from actual experience what aid may be relied on from it, in distinguishing the morbid changes of organs. This course would require that it should be persevered in, until the enquirer should be sufficiently skilled in the use of the instrument to be quite sure of not charging upon the method, his want of expertness, and inaccuracy or dullness of hearing. It is a remark we have many times heard from physicians, that they never could derive advantage from the stethoscope, when perhaps, they had not in their lives practised its application as many as fifty times! How is it possible that ears totally unused to discriminate between faint and peculiar sounds, should at once adapt themselves to such nice distinctions? The experienced surgeon or accoucheur, whose "learned touch" conveys to him the most accurate information, and enables him to discriminate soft and delicate structures with as much certainty as if they were displayed to his sight, arrives at this degree of skill after long-continued practice and constant attention. To him it would seem very ridiculous, should a tyro assert that he had several times tried to distinguish vessels, &c. by the touch, in vain, and thence come to the conclusion, that such skill was not to be acquired. Yet, in fact, this is not more ridiculous, than that those who have used the stethoscope or plessimeter but a very few times, should, from such an experience, decide against the value of the instruments, and withhold their invaluable benefits from patients, by neglecting to learn how to use them.

Many persons, with a view of excusing themselves for such neglect, enquire, if they cannot make out a sufficiently correct diagnosis by other signs afforded by functional disturbance, pain, &c.? This may be answered in the negative, and very positively, in a very large number of cases. The discrimination of diseases of the lungs, heart, and organs immediately connected with the chest, can never be made without the stethoscope, as may be done with it. The general condition of organs may indeed be *inferred;* but nothing beyond probability is arrived at; by the aid of the stethoscope, (and now, according to Dr. Piorry, with the plessimeter,) certainty of diagnosis in a large number of most important cases, may be attained. But, if such proceeding were not too invidious, we might refer to a very large collection of instances, in which the diagnosis laid down by physicians of eminence and experience, have been proved totally erroneous by application of the stethoscope, and patients restored in consequence to hope and life by the substitution of totally new views of their diseases and modes of treatment. Other cases might be adduced, in which men of celebrity, (but not condescending to such innovations as the stethoscope,) have pronounced the disease to be such and such, and instituted the treatment therefor. Examination of the dead bodies of these patients have shown, that had the stethoscope been properly resorted to, the true character of the disease would have been at once obvious, and a course of treatment instituted, perhaps directly opposite to that actually and unavailingly employed.

To those who have the advantage of now commencing the study of medicine, we cannot avoid urging upon their most serious consideration, the study of mediate auscultation and percussion, (as taught by Laennec and Piorry,) both as a sacred duty to patients, and the most certain means of securing confidence and business, from the superiority it will confer over all those who have slighted such acquisitions. We hope the time is not far distant when those who are ignorant of these modes of research, will cease to be entrusted with the treatment of thoracic diseases; as under all circumstances, he must be allowed to be the best qualified for such trusts, who in addition to the common stock of information, is superior to his competitors by the possession of a highly cultivated sense, of whose use they are ignorant.

J. D. G.

BIBLIOGRAPHICAL NOTICES.

XIX. D. Francisci Caroli Naegele, *Professoris Heidelbergensis, Epistola ad Theodorum Fredericum Baltz, M. et C. D. qua Historia et Descriptio Aneurysmatis quod in Aorta Abdominali observavit, continetur, addita tabula aenea.* Heidelb. 4to. pp. 18. pl. 1.

Aneurism of the inferior part of the abdominal aorta is a disease of rare occurrence, while nothing is more common than to find the arch of the aorta in this condition. It is, therefore, not surprising, that the true character of the disease, when it takes place in the first mentioned situation, should not be immediately and clearly recognised; and this renders it desirable that an accurate record should be kept of such cases as may fall under the observation of practitioners. Professor Naegele, in his epistle to Dr. Baltz, has given a very interesting account of an instance of aneurism of the aorta, occurring just above its division into the common iliacs, which we here translate for the benefit of our readers.

The patient was a lady, who, with the exception of a slight curvature of the spine, caused while at school, was of large stature, and firmly built, though graceful and well-proportioned. At the time of her death she was thirty-three years old. She was one of a considerable number of children of the same parents, and her father, who died of hydrothorax when seventy-two years old, was subject to gout and rheumatism, as were some of his sons also. In her infancy, her dentition was accompanied by many difficulties; and from her fifth to her sixth year, she suffered much from ophthalmia. About this time the slight flexure of the spine was perceived, for which some mechanical contrivance was worn. From fourteen to seventeen her health was very imperfect, and she was often affected by œdema of the feet, which at the same time were covered by brown spots. Menstruation began at seventeen, and continued with perfect regularity throughout her life. At the age of twenty-two she married, and except some rheumatic pains, and slight fevers, enjoyed for several years good health, being of robust constitution, and very beautiful. Her temper of mind was severe, sad, and easily yielding to the influence of imagination, which could not be excited to the least liveliness, nor hilarity. Her attention was exclusively devoted to domestic affairs, and the care of her health, which in fact received more than a due share of regard. Her relatives had no knowledge of her ever having suffered any violent blow, or other mechanical injury that could have given origin to her disease.

Her first pregnancy increased her sadness and moroseness. She sometimes complained of pain; and in the seventh month was delivered of a dead and putrescent child. She soon recovered her usual health, but during the next year the brown spots on her feet ulcerated, and remained incurable. At the same time, a tumour formed on her left knee, which sometimes increased, and at others diminished, according to the state of the weather. Her second pregnancy terminated in the eighth month by the birth of a dead child. During this pregnancy she suffered greatly from anxiety about the præcordia, which, with her usual sadness, was much increased by dread of again having a still-born infant. The third pregnancy was not more fortunate than the former: her anguish increasing at each period, and her mind tormented by fear. Hence she was desirous of taking medicines, and of seeking the best medical aid, both because she was exceedingly desirous of living, and of bearing a living child. Although she was of a fine figure, and except the left hip being a little higher than the right, no irregularity could be discovered in the pelvis, yet in her fourth pregnancy her physicians persuaded her to keep in a reclining posture as much as possible, because they believed her unfortunate miscarriages to be caused by some deformity of the pelvis; to this advice she yielded such implicit obedience as actually to pass four months almost entirely in a horizontal position, notwithstanding all the inconveniences and increased suffering it produced. At length her sufferings became so great that it could no longer be endured. Fourteen days sooner than natural she was affected by parturient throes, which subsided for eight days, at which time she was delivered of another dead infant.

Her fifth and last pregnancy was attended by an accumulation of all her distresses; her mind being continually racked by fear of producing another dead child, and her imagination filled with sad and horrible fancies. Having observed that her three preceding deliveries commenced about a fortnight before the usual time, and the orifice of the womb was then dilated, though the pains ceased, and at some future time the birth of an inanimate fœtus ensued, the physicians resolved to observe this commencement of the pains more closely. Finding that the labour came on as before, and observing at the time signs of life in the child, they turned, and delivered it without delay. It was a very delicate and emaciated infant, but gave some signs of being alive. The placenta was of firm texture, and having a dense, sharp, solid, and almost cartilaginous margin; over its surface many earthy concretions or ossifications were scattered; the condition of the placenta in her other labours had been somewhat similar.

To œdema, coldness, and dryness, as well as occasional ulceration of the feet, she was always subject; and the swelling of the feet appeared to afford relief to her pectoral distress. The skin of the feet became hard, rough, crusty, and rugose, occasionally desquamating, and having the appearance of belonging to an old woman.

For the last four or five years of life she was afflicted with palpitations of the heart, which often intermitted for a long time, yet always returned more vehemently, accompanied most frequently with an equal, but stronger sense of pulsation in the abdominal aorta. Gradually these attacks became more frequent; varying in force; returning at night when not felt during the day time. Every thing affecting the mind increased the palpitation; the excitement of coition during the three last years of her existence, uniformly caused the most dreadful fits. She was subject to vast pain, constriction of the chest, impairment of circulation, congestions of the head, &c. Her physician at this time believed her disease to have been dropsy of the pericardium, and treated her accordingly; and of course in vain. A very skilful physician, who attended her closely during eight days of the next year, was induced by the symptoms to believe that her disease was aneurism of the aorta; and from the distress and suffering experienced in the thorax, and some difficulty of swallowing, he concluded it to be seated about the arch of the vessel; a conclusion which led him to neglect any examination of the abdomen.

In November of 1814, she had at night a dreadful attack of palpitation, extreme anguish, spasms, vehement dyspnœa, convulsions, loss of sense, paleness, coldness, &c. Indeed, she was believed to be dead, and was very slowly recovered. From what was told the author, he thought the attack to have been similar to that following violent uterine hæmorrhage. It was five days after this attack, (16th November,) that professor Naegele visited her, not having seen her for half a year previous; he could scarcely recognise her. Her face was pallid and greatly changed, by emaciation; the slightest motion excited palpitation; the pulse was feeble, scarcely discoverable, and altogether irregular, and during the rest of her life, which ended on the 28th November, it was impossible to observe in it the slightest approach to regularity. Her breathing was free; the mind tranquil; feet cold. A hard oblong tumour situated a little to the left, extending from the superior to the inferior part of the abdomen, which pulsated vehemently but regularly, could be distinguished by applying the hand. The pulsation was so powerful, that pressure with both hands could not restrain or diminish it. As the patient's condition was so obvious, nothing could be done but to lessen her sufferings as much as possible. She died, however, in a few days.

Examination of the body.—Thorax. Except some slight adhesions, lungs sound; heart rather smaller than usual; great vessels altogether empty of blood. Abdomen. Bluish-black tumour in the hypogastric region, rather to the left side, prominent, and of the size of a human head. The intestines being removed from the tumour, its rounded part evidently occupied the abdominal aorta, yet not entirely. Its anterior surface covered by the peritoneum, was very smooth. The heart with the whole aorta was carefully removed; the tumour by itself, weighed nearly five pounds, apothecaries weight. The greater part of the tumour was composed of strata of coagulated blood, which being removed allowed the true character of the aneurism to be seen. The dilatation began about an inch and a half above the origin of the cœliac artery, where the aorta traverses the crura diaphragmatis, and gradually increased down to the giving off of the renal arteries; immediately below which the true sac or greater tumour began to swell out, thence down to the extremity of the undivided part of the aorta, or to the bifurcation into the common iliacs. The total length of the dilated portion of the aorta was eleven inches; the great sac was very near six inches long and five inches in breadth. The caliber of the vessel was not altogether equally dilated, but more from both sides and in front. A very small chink or slit was found to the right of the origin of the inferior mesenteric artery, through which it is probable that shortly before death, blood escaped into the cellular texture, so that the aneurism, which was a *true* one from the commencement, had at length become what is termed *spurious*, and the immediate cause of death. This evidently was a true aneurism as all the arterial coats could be distinctly traced by the knife throughout the whole dilatation. Throughout the whole of this aorta, osseous points, squamules, and lamellæ were found in the substance of its tunics. The walls of the aorta were increased in thickness throughout the dilatation, and the great or inferior sac had them thickest. Both iliac arteries were very thin, and it was very remarkable that instead of arising from the trunk by an acute angle, they formed a very slightly curved line. The gouty and rheumatic diathesis inherited from the father is supposed to have been the predisposing cause of this disease.

We have no remark to offer concerning this case, but the following:—a proper use of the stethoscope would in five minutes have declared the real character of this disease, whose true nature was not determined for five years; and then when the patient was almost extinct. It would have positively indicated that the heart, pericardium, lungs and arch of the aorta were sound, and could not have failed to lead a judicious examiner to the knowledge of the precise location and extent of the enlargement. By this elucidation of the case in its early period, such a treatment might have been instituted as would have saved the patient from a vast deal of unnecessary suffering and medicine, and very probably have sustained her in comparative comfort during a long and useful life; while for want of a sufficiently early and correct diagnosis of her disease, she was relinquished to exasperated sufferings and a premature grave. Can any stronger inducement be held out to those who are ignorant of the science of mediate auscultation, to apply themselves with diligence to its study?

J. D. G.

XX. *A Treatise on Pathological Anatomy.* By William E. Horner, M. D. Adjunct Professor of Anatomy, in the University of Pennsylvania, Surgeon at the Infirmary of the Philadelphia Alms House; Member of the American Philosophical Society, &c. Philadelphia, 1829, 8vo. pp. 456. Pls. III. of which II. are exquisitely coloured.

From the perusal of this treatise we have derived unequivocal satisfaction, and are of opinion that it will add largely and lastingly to the scientific reputation of the author. It came to hand too late, or we should have prepared an ample analysis of it for the present number of the Journal, but must on this occasion be content to give a brief notice. Like all the other works of Dr. Horner, it has necessarily been prepared at intervals of leisure and abstraction from the cares of active business, yet we are happy to perceive in it few marks of haste, and a very considerable degree of that elaboration of expression, which is so essential to the permanent usefulness of every didactic work. Perhaps few individuals, could be found in our country, uniting so many of the essentials to the successful preparation of such a work, as Dr. Horner; his experience as an army surgeon; his anatomical labours, under the immediate care and inspection of the zealous and indefatigable Wistar; his many years devotion to practical anatomy in the university, in aid of Dr. Physick, and the opportunities he has enjoyed of studying pathology in the ample Infirmary of the Alms House, all conspire to fit him for the task. To these advantages may be added the rich and extensive field of observation, thrown open to him by his medical brethren, who have long been in the habit of confidentially inviting him to make anatomical examinations of their deceased patients; this confidence, highly creditable to all concerned, has been of much value in the preparation of this treatise, and is acknowledged by the author, with a fullness of satisfaction which shows him to be conscious of having justly deserved it.

In addition to the advantage of having a judicious and accurate treatise upon pathological anatomy, we confess to the unphilosophical weakness, as some call it, of deriving pleasure from the circumstance of its being the production of an AMERICAN, and to a very satisfactory degree, a work of original observation. We have a higher gratification in Dr. Horner's avowal, that his researches have led him to become a disciple of what is called the modern school of physiological medicine, because we are glad to find the correctness of our own decisions on the same subject, confirmed, by a cautious investigator of such extensive experience, and because we believe that the ultimate improvement of our profession, from the labours of that school, will be greater than ever was effected by all its predecessors.

For the present, without attempting to give an account of the plan of the work, we can conscientiously commend it to the members of the profession, as a satisfactory, interesting and instructive view of the subjects discussed, and as well adapted to aid them in forming a correct appreciation of the diseased conditions they are called on to relieve. J. D. G.

XXI. *A Treatise on the Cutaneous diseases Incident to Childhood; comprehending their Origin, Nature, Treatment, and Prevention.* By WALTER C. DENDY, Surgeon to the Royal Infirmary for Children, &c. 8vo. pp. 289. London, 1827.

Cutaneous diseases are from many obvious reasons subjects of so great interest to the medical profession, as to make any apology for presenting a brief outline of the volume before us altogether unnecessary.

Passing over much general information in the introductory chapters, relating to the prevention of infantine eruptions, aliment, the employment of laxatives, ablution, &c. as of minor importance, we shall enter at once on the more immediate objects of the work. Cutaneous diseases are arranged by Mr. D. under the following heads:

1st. *Those* which are symptomatic of disorder in the alimentary viscera.

2d. *Those* symptomatic chiefly of deranged chylopoietic functions, usually marked by debility.

3d. *Those* usually symptomatic; arising also from extraneous excitement; depending probably on peculiar idiosyncracy.

4th. *Those* consequent to specific infection, and

5th. *Those* which are local; usually accompanied by little or no constitutional derangement.

Of those diseases which are symptomatic of disorder in the alimentary viscera, the first which comes under our notice is STROPHULUS, called also by the popular names of red gum, white gum, milk spots, tooth-rash, &c. The varieties of this genus are exclusively confined to the infantile period of life, and are merely degrees of the same affection. *Strophulus intertinctus,* the mild red gum, is an eruption of bright red papulæ interspersed with minute stigmata, and with red circular patches. Their duration is variable, sometimes disappearing in eight or ten days, at others not under a fortnight. Sometimes the stigmata coalesce, and where there is excessive vascularity and irritability of the skin, they form circular patches of a deeper red colour, more elevated than those of simple *intertinctus*, with distinct papulæ scattered over them. In this form of the disease there is a disposition to superficial ulceration, particularly if rubbed or scratched. There is one peculiarity deserving of notice, it is that in this form of papulæ there is a tendency to become *erratic*, portions of the integuments at remote distances becoming successively its seat; it is hence termed by Willan *volaticus*. Minute vesicles sometimes appear among the papulæ, occasionally filled with a straw-coloured fluid; the contained fluid is often removed by the absorbents, or the cuticle becoming abraded, ulceration may ensue, and the disease degenerates to one of a more aggravated character; sometimes even into contagious scabies.

Strophulus albidus, or white gum, consists of minute opaque pearl-coloured spots, and is occasionally interspersed among other varieties of this disease. Where the papulæ are distributed over a more extended surface, it is called rank red gum, or tooth-rash. The term *Strophulus candidus* is applied to an eruption of a few large white papulæ, with very slight inflamed bases, occurring as the sequelæ of some acute infantine diseases, as pneumonia, &c.

The exciting causes of strophulus, are dentition, and irritation in the primæ viæ.

Treatment.—Tepid ablution thrice a day, and light clothing. If convulsions supervene from the recession, a slight stimulating liniment may be rubbed on the sternum, or sinapisms to the soles of the feet. The food should be cautiously administered; and the nurses milk should be bland and nutritive, clear, and of a bluish colour. Laxatives are indicated; in slight cases a mild aperient taken every second or third day would be sufficient, or two or three grains of carb. magnes. and pulv. rhei may be given every night. If the derangement of the bowels is caused by dentition, free incisions of the gums should be resorted to. When the papulæ frequently recur, even during attentive treatment, it will be proper to change the nurse, which is often promptly beneficial. There is a variety in which there is evident debility, which may terminate in fatal marasmus. Papular clusters arise in different parts of the body, and terminate in brown exfoliations. A gentle laxative should be given every second day, and carb. sodæ with columbo or cascarilla, or the aqueous solution of tart. ferri in small quantities, frequently repeated.

PRURIGO, *Psoris papulosa*, does not frequently occur in children. It is an eruption of very faint pink papulæ, with a very slightly inflamed base, accompanied by intense itching, which when it becomes aggravated is combined with formication. When the papulæ are lacerated by scratching, there is an exudation of watery sanies, which forms thin crusts of an amber or black colour. Sometimes where the habit is gross, friction will result in a superficial ulceration, or a true pustule. It is not contagious, but has nevertheless been imparted by the mother to the sucking infant. The most frequent cause of this disease in infants, is disorder of the alimentary canal. In some cases it appears shortly after swallowing some peculiar liquid or solid or from excess of ordinary food. A copious draught of cold water, when heated, not uncommonly causes this eruption. It may be caused by eating fish out of season, and by drinking acetous fluids.

Treatment.—In mild cases, warm bath or tepid ablution, with sulph. potassæ,

℈ss. ad ʒss. or lac sulphuris, ℈j. ad ʒj. twice a day, will be effectual. In the more aggravated form we must amend the gastric secretions and remove external irritation by a light, nutritious diet, (as melted jelly or asses milk, &c.) a laxative every second morning, and combinations of sulphur, soda, and columbo twice a day, or arsenical solution, gtt. ij. to vj. thrice a day. Mr. Wilkinson's plan is pil. hyd. sub. c. o. n.—sol. min. ter die. Aromatic vinegar applied on a probe to the prominent papulæ and then this ointment: ℞. sulph. sublim., picis liq. axung. āā. ℥ij.; cretæ, ℥ss.; ammon. hydrosulph. gr. xv. M. to be applied daily; every second day the vinegar to be used. Dr. Willan distrusts the efficacy of stimulating unguents, and forbids drastic purges but recommends, in some instances, liq. am. ac. dilut. as a wash, and also oxygen. muriat. acid, gtt. xij. ad xx. twice a day. Vin. colchi. gtt. xx. ad xxx. thrice a day for two or three weeks has been beneficial. In every case without inflammatory action, sulphurous fumigations at the lowest possible temperature may be employed. Belladonna lotion has been beneficial in many cases. This disease will frequently degenerate into contagious scabies, and sometimes into impetigo or ecthyma, from neglecting to remove sordes from the skin.

Crusta Lactea. *Lactumen.—Porrigo lactea.—Porrigo larvalis.—Teigne muqueuse.* Mr. D. thinks this disease is a degeneration of the vesicles accompaying strophulus, produced by the irritation of deteriorated milk, or of dentition, and separates it from the varieties of contagious porrigo. From the cause above stated, the vesicles of a straw-coloured tinge, often coalesce and become surrounded by an erythematous blush. On the bursting of the vesicles a viscid fluid is discharged, which becoming inspissated forms crusts of a whitish light-yellow, or greenish tinge, lying in laminæ, some overlapping others or intersected by narrow pinkish or olive-coloured fissures.

Treatment.—In the mild form, a change of breast milk, and the mildest laxatives, as hyd. sub-mur. gr. ss. pulv. rhæi. gr. ij. pot. sulph. gr. iv. &c. succeeded by an alterative of hyd. cum creta, gr. ij. ad v., carb. magnes. gr. ij. o. n. or sodæ carb. gr. iij. lac. sulph. gr. iv. may be continued for four or five days, and after an interval of three or four more renewed. If the abdomen is tumid, or the evacuations continue unhealthy, a decided purgative should be employed, or the laxative more frequently repeated. If the general health has suffered, and debility ensue, carb. ferri. and cascarilla should be used. The local applications should be tepid water or thin gruel, and the ungt. plumbi or lotio plumbi to the excoriated edges. When inflammation subsides, the ungt. hydr. nit. mit. or ungt. zinci. or ungt. ceruss. acet. and ungt. hydr. nit. mit. āā. may be used. If the crusts are dry, use a little cream, or ol. amygdalæ with a few drops of liq. potass. and if too moist, lac sulphur and hair powder combined may be sprinkled on them.

Follicular Tumours. *Crinones.—Follicular wart.—Acne simplex and punctata.—Sycosis capillitii.* These may be the result of negligence in cleansing the skin, but in most cases they arise from a deranged state of the digestive organs. *Crinones* or grubs, where the sebaceous matter is in excess, sometimes cover the backs of infants with whitish elevations.

Cure. Rub the part night and morning by the fire with a coarse cloth dipped in warm water, and administer a gentle laxative.

Follicular wart. A follicular tumefaction usually occurring in children from two to six; differing from acne, being white and more elevated, seldom in groups, though two may sometimes coalesce. After remaining for some time stationary, if the digestive organs are deranged by errors in diet, the previously quiescent tumour will suddenly increase and suppurate.

Cure. The tumour should be excised by means of a dissecting forceps and scissors.

ACNE SIMPLEX.—PUNCTATA, can scarcely be called a disease of children.

Sycosis capillitii, is an obstruction of the follicles on the hairy scalp in children. The incipient tumours occur in clusters surrounded by a light vermilion blush, usually suppurate in eight or ten days; the ulcerated surface assuming the appearance of the pulp of a fig, (whence the name,) discharging a rancid smelling ichor.

Cure. If the inflammation is high, use the liq. plumb. subac. dilut. and a poultice, and when ulcerated, the poultice only when the inflammatory action has abated, ungt. hyd. nit. dilut. or lotio flava to the fungus. Internally, muriatic or sulphuric acid, with cascarilla and laxatives.

URTICARIA. *Nettle Rash.* This is too well known to require description; Mr. D. offers nothing new in the treatment.

IMPETIGO. *Pustular, or Humid Tetter,* is non-contagious except in tropical climates, and "consists in an incrustation of the purulent discharge from those pustules, which have been denominated psydracia. These incipient psydracia appear either distinctly or irregularly scattered over an extended inflamed surface, or in clusters with a defined inflammatory blush surrounding them." When the pustules burst, the part becomes red and shining, and exhibits frequently a cribriform appearance. The discharge concretes into thin, brownish, yellow or olive-coloured crusts. The healing process begins usually in the centre and *radiates* towards the circumference.

Cure. If called early we may attempt to prevent the maturation of the pustule, by first removing the internal derangement of function, and touching it lightly with liq. plumbi or spt. rectif., or a drop of acet. aromat. on lint, or solut. argent. nitrat. In the inflammatory stage we should wash the part with tepid water, or a mild decoction of poppies, or apply a very thin bread poultice, and give an efficient purgative, and a mild laxative every morning with 8 or 10 grs. of potass. sulphas. or sulph. precip. grs. 10, twice a day. When inflammation is excessive, leeches or venesection may be resorted to. When inflammatory action subsides, and the disease assumes the chronic form, astringent lotions with alteratives or tonics may be used, such as solut. arg. nit. or lotio zinci. or lotio flava.

Sulphurous fumigation is here serviceable. A lotion of acid hydrocyanic, ʒiij. alcohol, ℥ss; aq. distillat. ℥viss; has been extolled by Dr. Thomson. Sea bathing is useful. A lotion of potass. sulph. ʒvj. aq. ros. vel distillat. ℔.ss. will sometimes allay the irritation in a few hours, though at first it is painful. It should be accompanied by the pil. hydr. gr.j. or ij. at night, and decoct. sarsa. ℥ss. or potass. sulphuret. ℈ss. twice a day. When debility is extreme, the decoct dulcamaræ—the vegetable and mineral acids, cascarilla and columbo may be added. The encrusted parts should be covered with oiled silk.

HERPES. *Shingles.* "Herpes phlyctenodes (zoster or zona) consists of an eruption of transparent vesicles of varied size from that of a millet seed to that of a pea." Usually preceded for two or three days, by some local tingling and a pink blush, accompanied by febrile symptoms. The smaller vesicles occur in defined clusters, the larger often separate. It is not confined to any portion of the body, but its most usual location is the dorsal and abdominal integuments, which are peculiarly predisposed to the eruption of the larger vesicles of the zona, which not unfrequently encircle the body. There is one variety of this disease which affects the corners of the mouth, and may surround it entirely, (it is termed labialis.) When it affects the male or female organs of generation, it assumes corresponding names, as genitalis, &c. The more rare and beautiful *herpes iris,* so called from its peculiar form and variety of tints, is observed only in young people, and requires the simplest treatment.

Cure. To avoid the convulsions and other sequelæ produced by the mere irritation of the vesicles, they may be cauterized after the manner of Geoffroy and Lisfranc. On the establishment of the disease, mild laxatives and diaphoretics should be freely used. A calomel powder, of grs. v. and the effervescing draught with a warm atmosphere and light diet will comprehend the necessary general treatment. The local treatment consists of mild tepid ablutions, the ungt. cetacei. on a burnt rag, and defending the part from the irritation of clothing.

Herpes circinatus, or vesicular ring-worm differs entirely in its mode of treatment, from the above. "The lotio aluminosa, or decoct. gallæ, or the solut. of the metallic oxides being fully adequate to its removal in a few weeks." The bowels should be attended to.

Under his second division Mr. D. includes several diseases which we do not think properly belong to the class of cutaneous diseases. Among these are aphthæ, nomè, and œdema cellularis, we shall therefore wave the consideration of them.

RUPIA—ECTHYMA. In its incipient form, rupia consists of a broad, flattish vesicle; ecthyma, of the phlyzacious pustule, both terminating in circular imbedded incrustations.

Treatment.—In mild ecthyma lactantium the change of milk with a laxative will suffice. In children past weaning, more nutritive food with laxatives, and if there is much debility this draught twice or thrice a day, ℞. Tr. cascarilla. gtt. xij. Tr. Ferri. gtts. iv. aq. aurant. flor. ʒiij. M. The simplest local applications should be used as ungt. cetacei. In the superficial ulceration from acrimonious discharge with itching, the ungt. opiat. dilut. is serviceable. In ecthyma cachecticum and rupia escharotica, where there are gangrenous eschars, and deep sloughing ulcers, the tonic plan must be decidedly employed, the patient should be sent into the country or to the sea-side.

In addition to the usual tonics, pyroligneous acid in the following formula will be found to restore the tone of the stomach, ℞. aq. flor. aur., ʒij; ac. pyrolig., ℥j.; syrup. ℥j. M. coch. j. parv. ter die. Great advantage has been derived from chloruret of potass., gr. iv. ter die. Balsam of Peru in small doses will be usually of service. Minute opiates and warm bath to allay irritation. If mesenteric disease be present, mild mercurial alteratives may be used.

PEMPHIGUS. This disease is not epidemic in England; affects children from three to seven years old. It commences with rigor, followed by the hot stage of fever, which continues four or five days, when the pulse sinks, pulsating 100 in the minute, the child becoming very languid. Soon after this, clear vesicles appear, without much surrounding inflammation: as these enlarge and become bullæ, the contained fluid changes to a straw-colour, the pulse sinks lower, prostration ensues, and the fever assumes the type of typhus mitior. If the case is irremediable, the child dies in five or six days from the eruption. The vesicles on the thighs and arms will sometimes extend to the length of three or four inches.

Treatment. A judicious treatment of the premonitory symptoms will probably prevent the disease; and this may have often resulted from venesection, emetics, and laxatives. When the vesicles appear it is best to puncture them, and then apply a lotion of plumb. superac. or weak solut. of arg. nit. and the warm bath. To these should be added the use of hyd. cum cret. or quinin. sulph. or cascarilla and mur. acid, or tart. ferri.

Purpura, "consists of minute red points, termed *stigmata,* of small purple spots, or *petechiæ,* formed by the coalescence of the stigmata, or of larger patches of a dark crimson, or purple colour, *ecchymoses* or *vibices:* the proximate cause being a subcuticular extravasation of blood."

Treatment. If purpura *simplex* arises from deficiency of nutrient properties in the milk, the nurse should be changed, or a light nourishing diet given; a mild laxative every second day, and tonics, if diarrhœa should reduce the child, together with country air.

Purpura hæmorrhagica, has occasioned a conflict of opinion among pathologists, some referring it to increased vascular action and others to debility. Without the exhibition of laxatives, either bleeding or tonics will be inefficient. Indeed laxatives by removing obstructions to the absorption of nutriment prove the best tonics. The first and second purge should contain calomel to act on the hepatic system. Mercury should not be long continued in purpura, though some recommend it to ptyalism. The best laxative is sub. carb. sod. with pulv. rhæi. If the indications of local congestion are present, diaphoretics and diuretics should be used. Blood must be abstracted cautiously "if it be resorted to, it must be in minute quantity." On the removal of local pain use tonics, combined with occasional laxatives, avoiding the use of direct stimuli. Even during the tonic plan very minute bleedings have been salutary in cases of the asthenic form.

Ichthyosis. *Fish-skin disease* results from a chronic inflammation of the cutaneous vessels, by which a peculiar deposition of diseased cuticle is effected. The morbid laminæ are not deciduous. In the incipient stage the disease appears like a simple discolouration or cloudiness. As the disease advances, the laminæ are elevated above the surface of the healthy cuticle, assuming a dirty yellow or dusky hue. In children they become rarely of a horny or tubercular character, but are of a dusky or grayish colour, and flat, having fissures of a darker colour, imparting a sensation resembling a coarse, dull file.

Treatment.—In the incipient stage the employment of moderate friction may succeed in arresting it. In the subsequent stages the squamæ may be removed by picking them off, and using the warm bath constantly; this is often successful in preventing a return; sulphurous fumigation will expedite this result. The nitro-muriatic bath renders the detachment of the scales more easy. Sudorifics or tonics should be administered. If the system is much debilitated, a laxative followed by solut. arsenic is of service. Pilula picis Dr. Bateman extols highly.

Chloasma. *Ephelis.—Maculæ hepaticæ.—Ephelide hepatique.—Leberflectete.* Is a symptomatic discolouration, often assimilating to the local stain lentigines, or sun spots, situated in the corium, appearing about the breast and arms interspersed with portions of skin of a natural hue; sometimes after a period becoming of a lighter colour than it was at first. It differs from freckles in its more irregular and indented margin, its wider extent, and occurring on parts defended from the sun. It is sometimes attended with a pricking sensation.

Cure.—Saline purgatives are most efficacious when the stain is recent, and mineral and vegetable acids with tonics when chronic, together with some stimulating lotion, as acet. acetosum.

Under the third division the first that presents is—

Roseola. *Rose-rash.* "An efflorescence of a rose, or bright crimson colour, symptomatic of derangement in the visceral functions, or of dentition, or accompanying acute febrile diseases."

R. infantilis is a bright rose-coloured eruption incident to infancy, disposed in patches on a light blush-coloured surface, or diffused, assuming the serpentine or semilunar form, (like rubeola,) and is often transitory. The chief cause is the irritation of dentition.

Treatment.—A laxative every, or every second morning, with alteratives, and free incision of the swollen gums, comprises the treatment.

R. æstiva, and *R. autumnalis.* The first intimately resembling rubeola sine catarrho, occur in the hotter months. Swallowing cold liquids by a child heated with exercise will occasionally produce serpentine, and circular patches of a dull crimson; this is *R. æstiva.* The *R. autumnalis* arises from the same causes, but appears in circular or oval spots, of a lake colour of different shades. A mild emetic, laxatives, sudorifics, and light food, constitute the treatment essential for these eruptions."

R. vaccinia and *variolosa* are treated of under the heads of their associated diseases.

Erythema. A diffused redness of the skin, marked by, or accompanying various degrees of excitement.

E. simplex consists of patches of dull crimson, irregularly spread over the surface, usually on the face, breast, and arms. It occurs sometimes in cases of slight diarrhœa, or from the accession of pain during dentition, or from certain kinds of food, as arrow-root; when it arises from derangement of the primæ viæ it is mostly evanescent, *(E. fugax.)* Sometimes it is combined with œdematous swellings, *(E. leve.)* Occasionally the efflorescence is observed interspersed with distinct papulæ, *(E. papulatum.)*

Treatment.—Gentle laxatives and mild tonics, as inf. aurant, &c. will be all sufficient, recollecting that if its origin is referrible to any decided disease, it should be treated accordingly.

E. nodosum is of rare occurrence in children. It consists of large rose-coloured oval patches on the anterior part of the leg, acutely painful, which fade, becoming dusky in about a week. Sometimes it consists of rose-coloured tubercular lumps thickly strewed over the leg or arm with surrounding efflorescence.

Eczema. An eruption of small, pearly, or brownish vesicles, closely crowded, with little surrounding inflammation, and no decided febrile symptoms;

non-contagious, and is excited by various causes, as the heat of the sun, *(E. solare,)* or lytta, tart. ant., cachew oil, or mercury; or by internal irritation, or from drinking draughts of cold water, or acid, or sub-acid fruits eaten in the heat of summer.

Treatment.—This is simple, consisting of mild laxatives, with infus. cascarilla, or columbo, and ac. sulph. dilut. or other vegetable tonic. Underwood recommends the juice of sium aquaticum, coch. j.; ad v. given in new milk. The local applications should be tepid water, bread poultice, or strained gruel. If there is much ulceration the ungt. plumbi dil. or ungt. cetacei, and a little pulv. opii may be used.

Pityriasis consists of progressive exfoliations of thin scales, unattended by a fluid discharge, is non-contagious, and arises from chronic inflammation affecting the cuticle.

P. capitis, or dandriff, is to be removed by simple ablution; when the laminæ become a hardened crustaceous mass, *(P. scabida,)* the hair should be cut closely after the crust has been softened by tepid ablution, or warm poultices, and a cathartic given.

On the breasts of children of ten or twelve years old, there are sometimes light brown scales attended with itching, *(P. versicolor,)* and the discolouration is variegated. It may be checked by an alkaline liniment, composed of liq. potass. ʒij.; aq. rose, ℔ss. In case of present debility, decoct. sarsæ. and sulph. acid should be given.

Psoriasis. *Scaly Tetter.* It is non-contagious, occurring in irregularly circumscribed scaly patches, of a red or brownish colour, interspersed with fissures. These patches are of various sizes. The disease is accompanied by intense itching and heat, increased by elevation of temperature or friction, which sometimes produces deep ulceration, from which purulent fluid is secreted, which concretes with the small furfuraceous laminæ detached from the scales, and produces a more elevated crust.

Treatment.—In the early stage the bowels should be kept freely opened, and the lightest form of diet used; the diseased skin preserved by light covering from mechanical irritants, and rest enjoined. For allaying constitutional irritation, a draught of mist. camph. and spt. æth. nitric may be given twice a day; and a small dose of ext. hyosciami at night. In psoriasis of a dry description, much benefit is derived from v., x., or xij. drops of ac. sulph. dil. twice a day, with sago and broths. In the incipient stage, tepid water, or a very light and moist bread poultice, frequently applied, or warm vapour bath is all sufficient. The disease is often aggravated even by liq. plumb. subac. dilut., though much benefit may be derived from the cream or oil of almonds. A laxative should be given invariably every second day, leeches applied round the edges of the scales, and if the pulse is very full, venesection should be practiced. To relieve local irritation, use fomentations of belladonna, watching, however, its effects, as coma, delirium, and dark purple inflammation of the fauces, have occasionally resulted. When the inflammatory symptoms abate, sulphur fumigations may be used, combined with the arsenical solution; and the following:—℞. sulph. precip., ʒss.; potass. supertart., ℥j.; P. jalap, ʒss.; ft. pulv. 18; cap. j., bis in dies—aq. picis, ℔ss. x. omni mane. To these add cinchona if debility supervenes. Solutions of the alkaline sulphurets have been found efficacious; and decoct. dulcamaræ, with alteratives and change of air, has been successful in a case of two years standing. Much benefit has resulted from the pill. hyd. sub. c. Lotio flava is often very beneficial in the second stage, when the scales have been detached by the liq. potass, or acid muriat. In this state if the skin is pale, use the ungt. hyd. nitr. mit. Psoriasis of the lips, especially that tumid and fissured state of the lower lip, always indicates chronic inflammation or irritation of the viscera: leeches on the abdomen will often cure this when local remedies and purges have failed.

PORRIGO. "A contagious pustular disease terminating in incrustation."

Porrigo favosa, (syn. Tinea capitis—Tinea favosa—Scabies capitis favosa—Teigne faveuse, scald head,) "is marked by the eruption of favi;" large, flat, light yellow pustules, occurring on all parts of the skin, but mostly about the ears, the occiput, mouth, and forehead, attended with considerable irritation, but no fever. The favi soon become confluent, and breaking, pour out a very glutinous purulent secretion, which concretes into yellow, olive-coloured, or brown crusts.

The *treatment* consists in mild cases in a purgative, succeeded by a mild laxative every morning, and sponging with tepid water, and a poultice to the sore surface to remove the scabs. The effect of laxatives frequently is to check the eruption, and prevent a fresh crop, which is aided by the addition of alteratives, as hyd. cum. soda, hyd. oxyd. nigr. in children of a gross habit; and where there is a strumous diathesis by mineral acids, solut. tart. of iron, the mur. barytes, or the alkaline chlorurets, especially the chloruret of soda. When inflammatory action subsides, if healing is not in progress, we may use ungt. picis, p. j.; ungt. sulph., p. ij. The French use with antiphlogistics, cataplasms and blisters to the arm. In very stubborn cases, equal parts of nitric acid, oil, and water, will be very efficacious.

Porrigo scutulata, (Ring-worm of the scalp—Pustular ring-worm,) consists of patches of yellow achores, detached, often remote, situated chiefly on the scalp, or other parts covered by capilluli.

Treatment.—The same constitutional means are to be resorted to as in the favosa. The local means are tepid ablution, poultices, and gently to detach and remove the destroyed hairs. When inflammation has been thus allayed, astringents, as sulph. cupri in solution or powder, the infusion of galls, the solut. of chloruret of soda, or deuto-ioduret of mercury with æther, may be applied, or the lotio arg. nitrat. The calx. hydrarg. alb. may be cautiously used to destroy the diseased glands. The following is used in Paris:—℞. j. sod. alicant, ʒiij.; potass. sulph. ʒiij.; lard, ℥iij. M. used daily after poulticing. The decoc. tabacæ has succeeded after other means have failed; it requires caution. Professor Hamilton's plan during the early stages, is to apply warm vinegar every night, followed by friction, with u. hyd. nit. mit. which was mostly successful.

When the scabs are dry, use liq. potass. or dilute nitric acid to soften them, then a poultice, and lastly, the inf. gallæ to restore the tone of the part. To detrude the hairs, apply three or four times the pulv. hellebori. alb. and ungt. picis, lukewarm: covering the head with an oil-skin cap, the loose hairs may after these applications be easily extracted. If the skin remain indurated, rub in ungt. hyd. and sulph. precip. p. æq. or wash with alcohol twice or thrice a day.

Paronychia, and Onychia maligna, are more properly in place in surgical treatises; we shall therefore pass them, and say for the same reason but a few words respecting *Pterygion, Fleshy caruncle,* or the *Fungous excrescence* vulgarly termed "growth of the nail into the flesh." Mr. D. after describing several approved methods of relief, gives a decided preference to the method of Mr. Durlachre. "It consists in cautiously cutting through the nail, with a very small knife, and without dividing or wounding the cuticle interposed between its under surface, and the sensative structure beneath it; then with a minute pair of forceps, raising and detaching the nail." This mode gives little or no pain, and having practised it, we can testify to its superiority over every other method we have tried.

Erysipelas, *St. Anthony's Fire,* "is a diffused and irregularly circumscribed inflammation, of a somewhat shining appearance, frequently characterised by vesication." Mr. D. considers it under the heads of atonic and acute. As our limits do not permit us to condense the substance of his remarks on these two forms, into the space of a few lines; nor to give interest in so brief a view to a subject on which elaborate essays have been written, we shall proceed to the consideration of those diseases which follow.

Lepra, *Leprosy,* is defined "a deposition of dusky or whitish scales, usually assuming in *Lepra vulgaris* nearly a circular form. These circles are marked by fissures of a light olive colour, and are surrounding a central space, which, as well as the external margin, is of a rose-coloured inflammatory blush. The edges of these squamæ are slightly elevated, the circle being seldom complete, but broken by one or two wide, red fissures."

Lepra alphoides is a disease of much milder character, the scales being thinner, smaller, and of a more pearly hue. Seldom assuming an annular form; spreading longitudinally.

Treatment.—In the incipient stage enjoin a regulated diet and laxatives. If the disease occurs during lactation, change the wet nurse. To relax the stiffness of the skin, use the warm bath, or cream, or bran and water. To detach the scales, use dilute alcohol or muriatic acid, or liq. potassæ, and give internally decoc. dulcamara, and potassæ sulphas, very freely. When exfoliation occurs, use ungt. hydr. nitrat. On the subsidence of inflammation, sulphur fumigation may be freely employed, or lotions of dilute sulphuric acid. To aid in restoring tone to the relaxed vessels, benefit will result from the decoc. dulcamar. the solut. min. or ferri tart. or decoc. sarsæ.

Artificial Harrowgate water, made of sodæ mur. ℔ij. mag. sulph. ℥iij. potass. sulphuret. ℔j. aq. cong. 34, bull. ad. 98°, is a valuable bath, in which the child may be immersed thrice in a week.

In stubborn cases, a regular mercurial course is to be adopted.

Miliaria, *Suette miliaire,* is an eruption of minute pearl-coloured vesicles, surrounded by a very faint pink margin, and sometimes by a rose-coloured efflorescence, (*Roseola miliaris.*) We should employ a decidedly cooling treatment, adapting at the same time those internal antiphlogistic remedies which may correspond with the peculiar concomitant type of fever.

Pompholyx consists of transparent bladders, from the size of a swan-shot to that of a filbert; commencing with small papulæ, speedily becoming whitish, like the wheals of urticaria, and subsequently filled with transparent fluid imparting a cerulean hue to them, which in two or three days is tinged with yellow, and is soon discharged. The cuticle heals spontaneously if preserved from friction.

Pruriginous papulæ are often interspersed among the bullæ, (*Pomph. pruriginosus.*)

The *treatment* consists in the use of laxatives, with light poultices to the ulcerations, or fomentations with liq. plumb. if there is inflammation; and of vin. opii dilut. if there is pruriginous irritation.

We come now to Mr. D.'s fourth division "Diseases consequent to Specific Infection." These are rubeola, scarlatina, varicellæ, vaccinia, variola, *pestis* and *syphilitic eruptions,* we do not think the two last can be properly included. It comprises an order of diseases, which, from their greater importance, have been more studied and are better understood than most other diseases of the skin. Some of them are still the subjects of ingenious and elaborate research.

As we cannot do justice to their importance in the narrow limits of a review, we shall content ourselves with a bare description of the eruption or efflorescence.

Rubeola. *Rubeole.—Morbilli.—Measles.* On the fourth or fifth day, (of the fever,) the skin appears covered with small red spots, very slightly raised, which coalesce and form red patches of various shapes; some are circular and annular, others like extensive papulæ, but the greater part assuming the form of a crescent.

Scarlatina, *Scarlet fever,* consists of a diffused efflorescence, of a bright pink or scarlet hue. In the *simplex* it appears on the neck and face in pink spots, speedily coalescing in two or three days to one diffused efflorescence, which has not the crescentic form or light crimson hue of measles. Papulæ are often, and vesicles sometimes present.

Varicella. *Variola pusillæ.—Bastard-pock.—Chicken-pock, &c.* In the mild form of this disease, it consists of vesicles which are scattered, having a very faint pink hue around them. In the more aggravated forms, they approach to the character of variolous pustules. The eruption generally appears first on the breast: on the day subsequent to the appearance of the small incipient papula, it assumes a distinct vesicular character in the centre; these enlarge and are sometimes filled with a yellow purulent fluid about the fourth day, when they begin to subside, are flaccid at the edge, and on the fifth day brown-yellow crusts are formed.

Vaccinia. *Kine-pock, &c.* When the lymph is successfully inserted, after the lapse of forty or fifty hours a small red spot appears; about the fifth day, the papula having continued to increase, a small pearly visicle is perceived; on the seventh or eighth day, a slight depression is visible on it, and a more distinct annular form and a pink or rose-coloured ring is apparent. An elevated border is formed at the edge of the vesicle, consisting of a number of small vesiculæ, usually in distinct cells. On the ninth day the rosy blush has spread, and attains its height on the tenth.

Variola. *Small-pox, &c.* On the third or fourth day of the eruptive fever, small papular spots appear, first on the face and then on the breast; on their appearance the fever remits, and mostly subsides on the fifth or sixth day; when the papula vesicates and becomes slightly depressed in the centre, a light red margin is perceived around it, and a fainter blush more diffused. On the eighth day, the eruption becomes decidedly pustular, and "on the tenth day the disease may be termed at its acme." Of the *varioloid pustule* we do not feel authorised to attempt a description, as it admits of such a variety of appearance, and the disease itself is now universally admitted to be small-pox modified.

The last division, consisting of "local diseases usually accompanied by little or no constitutional derangement," comprises a few affections of comparatively little importance, as *Clavis,* (corn,) *Verruca,* (wart,) *Lentigo,* (freckles,) *Pernio, &c.* of which we shall take no further notice. There is, however, one among this order which is worthy of more consideration. It is

Scabies, *Psora, Le gale,* or *Itch,* which is divided into three species, the *S. papuliformis,* the *S. lymphatica,* and the *S. purulenta.*

The first, the pimply or rank itch, is an eruption of minute papuliform vesicles, preceded and accompanied by itching which becomes more intense as the vesicle is developed, and is aggravated by elevation of temperature. "It usually occurs first in the flexures of the joints, or on the breast. Among these minute vesiculæ, are often interspersed both vesicles of a larger size, and even phlyzacious pustules." The abrasion of the vesicles results in small blackish spots, which sprinkle the skin, and the frequent scratching produces numerous red parallel lines in clusters.

The lymphatica, or watery itch, closely resembles eczema solare, and herpes phlyctenodes. It is an eruption of large transparent vesicles, with little surrounding inflammation. They occur almost exclusively about the flexures of the joints, accompanied by severe itching.

Many of the vesicles burst in a short time, and form a small brown crust. Others become pustular, surrounded by a deeper and more extensive blush, and soon terminate in ulceration and consequent incrustation.

The *S. purulenta,* or pocky itch, "consists of large lemon-coloured pustules, usually occurring on the back of the hand, between the forefinger and thumb, on the feet, on the arms and legs, and in neglected cases, extending even to the fossa of the nates."

They are marked by an extensive blush of an inflammatory character. Sometimes the pustules coalesce, ulcerate, and are subsequently covered by a firmly-adhering, dark-brown scab.

Treatment.—The most generally efficacious remedy is sulphur, which indeed is the basis of the major part of the formulæ in use. In mild cases, particularly of *Scabies lymphatica,* the internal use of sulph. precipitat. will often effect a cure. In the more severe forms, the local application of this mineral, in the form of ointment, lotion, or fumigation, is essential, and may be combined with its internal use.

A number of formulæ are given by Mr. D. which we do not think it requisite to transcribe. Tonics are proper in cachectic cases.

Before we take our leave of Mr. D. we may remark in relation to the literary execution of his work, that he has fallen into several puerilities and affected modes of expression, which do not add to its perspicuity or beauty, and his not unfrequent *quotations* from ancient and modern poets and authors, (which almost invariably have a tendency to enervate the style, especially of a work professedly scientific,) forcibly reminded us of the passage, "he has been to a feast of languages, and stolen all the scraps." C. B. M.

XXII. *Traitè de Petite Chirurgie.* Par M. Bougery, M. D. Octavo, pp. 520. Paris. Rouen frères, 1829.

The title of this book, when put into the English language, (Small Surgery,) has to the greater number of readers so equivocal a meaning, that only a few would conjecture what is actually meant by it. Perhaps we should find more euphony, and what may seem a more scientific and expressive version by translating it Minor Surgery. In point of fact, the minor or more subordinate parts of surgery are its only objects; such things indeed as one would be tempted to call *common place*, and yet which, when they are to be executed, the young practitioner is apt to do so clumsily, that he is astonished frequently at his own inexpertness and ignorance, and is disposed to wonder how he could have been admitted into the profession of medicine, without a familiar acquaintance with them. Daily experience proves that such common place things, form the distinction between the practical and the speculative physician, and that simple and extremely accessible processes, are frequently much more effectual than the more complicated and researched. For example, what can be more readily obtained than the materials for a bread and milk poultice, what can be more useful, or more frequently resorted to, yet how few persons are there who can make it well, and how often does the application fail from its faulty preparation? Should the young physician be called upon to prepare his own poultice, he is apt to be placed in a lamentable predicament, from being without experience, and what is worse, without a book which contains the desired information; for it will be observed, that some of our dispensatories and formularies which are most used, have omitted the article poultice entirely, and with it also almost the whole tribe of cataplasms, fomentations, gargarisms, baths, fumigations, and injections, as if they did not belong to the regular and daily practice of physic, and were unworthy of the physician's notice.

Mr. Bougery, perceiving a deficiency on these and other elementary points, in the regular treatises on surgery, has undertaken to supply it, and to do him justice, he has accomplished this in a manner highly satisfactory and instructive; and like one who has a perfect familiarity with all the most useful details of hospital and private practice. He makes a frank acknowledgement, that with the exception of a few things, he has no pretension to originality, and is indebted to the clinical instructions he has received, and to some of the best works on surgery, especially those of Lafaye, Boyer, Sabatier, and Samuel Cooper.

Being from personal experience acquainted with the wants and resources of country practitioners, he has taken care to indicate such modes of management as are best adapted to their convenience. In this we think he has shown sufficient sagacity, as nothing can be more fruitless to the mass of the profession in the country, than a recommendation of articles and of apparatus, to the use and fabrication of which, neither the circumstances of their patients, nor the general state of the mechanical arts in the neighbourhood, are competent.

The Traité de Petite Chirurgie of Mr. Bougery does not present a regular classification of its subjects, from the difficulty of putting them into that shape, yet it is upon the whole methodical enough, and well arranged. It is distributed under several distinct heads, each of which is a treatise in itself, comprising several subordinate matters. These heads are—Dressings after operations and accidents;—topical medicaments, consisting in cataplasms, fomentations, baths, gargarisms, dashes, (douches,) injections, fumigations, liniments, embrocations, cerates, ointments, plasters;—bandages of every variety;—trusses;—artificial ulcerations, as blisters;—issues, setons, cauteries;—simple operations, as bleeding, cupping, leeching, vaccination, catherism, reduction of hernia;—wounds;—ulcers;—abscesses;—hæmorrhages.

We have risen from a hasty inspection of this work with impressions entirely in favour of it; it certainly must be a great acquisition to any medical library, and we earnestly hope, that for the benefit of persons not acquainted with French, an English version may be prepared. W. E. H.

XXIII. *Hints for Examination of Medical Witnesses.* By John Gordon Smith, M. D. &c. Professor of Medical Jurisprudence in the University of London. London, 1829, pp. 138, 12mo.

Few writers have been more zealous in the prosecution of their enquiries, or more indefatigable in their exertions to promote a general diffusion of their favourite branch of study, than the author of this small treatise. Until the appearance of Dr. Smith's Principles of Forensic medicine, there was no work in the English language exclusively devoted to medical jurisprudence; some few tracts it is true appeared at intervals, which, however valuable in themselves, were rather sketches of the numerous subjects embraced by that science, than works to which the physician and jurist could refer with confidence.

Dr. Smith observes that he has ventured on the present publication, from having heard complaints of the inconvenient size of his former works. It is addressed exclusively to the legal profession, and is calculated to afford them great assistance in their examinations, but, as is very justly observed by the author, it is by no means suited for medical men, who must extend their researches far beyond such narrow limits. It is the business of a medical witness to instruct the court and jury in the most minute particulars, on every point connected with his profession, which have a bearing on the subject under investigation, and hence his knowledge must be extensive and diversified. To the lawyer, however, little more is requisite, than such a general knowledge as will enable him to conduct an examination without harassing himself and a witness by a host of questions wholly irrelevant to the case.

The work is divided into two parts, the first including those topics which present themselves in the form of criminal process, and the second those of a civil nature; in the latter, however, are introduced some which oftentimes come under the cognizance of both; thus the proofs of lunacy may be equally important in each of them. In the first section, Dr. Smith includes homicide, infanticide, abortion, and rape.

Homicide he says may with tolerable accuracy be referred to one of the three following causes, viz.; poisoning, suffocation, wounds, and other mechanical violence. As our limits will not permit us to analyze either of these, or the other points treated of by Dr. Smith, we shall merely notice such directions and advice as appear new and important.

Whilst giving a very clear and lucid account of the effects of arsenic, and the modes of verifying the presence of this substance in the stomach and bowels, Dr. Smith observes that, symptoms, morbid appearances, and antidotes, can hold but a subordinate rank in the scale of proofs for judiciary satisfaction. We fully agree with our author, that too much has been written on the subject of the detection of arsenic; in fact too much has been attempted and too much importance attached to certain processes, which are but steps towards a conclusive verification. No *medical* proof of poisoning by arsenic ought to be received as evidence in a court of justice, short of the reduction of the metal, and we will even go further; the evidence of a medical man who has not previously made experiments on the detection of this and other analogous poisons, ought to be received with extreme caution, if not wholly disregarded.

In speaking of vegetable poisons, Dr. Smith remarks, that for their detection certain accessory properties and characteristics must be taken into account, and a practitioner ought to be able to detect them in every instance by means of their botanical characters when presented to notice in an unprepared form, or by their sensible properties when in the forms it is customary to see them reduced to in the hands of the druggist. Such should certainly be the case, but we are much afraid from the little attention paid by our medical men to medical botany and pharmacy, that they would find themselves wofully deficient in the knowledge necessary for such investigations.

In wounds or mechanical injuries, the intent with which they were inflicted is always considered by the court, and hence justice hardly requires medical assistance, except as to their description. Formerly the time during which a man was responsible for any violence he may have committed on the body of another, was limited, as is well known, to three hundred and sixty-six days, but this is now properly done away with. A medical practitioner, should always be able to explain when wounds may in appearance prove fatal, while the real cause of death is different; and it may often be highly important to ascertain how far wounds may be modified or aggravated by the state of health, and constitutional peculiarities of the parties sustaining them, by the treatment applied, and by other circumstances which may influence their event and termination. Thus, for instance, a blow in the groin may be a very slight matter in itself, and incapable of doing injury to a majority of persons, but if the party should happen to be afflicted with hernia, serious consequences may result. The issue is also greatly influenced by professional treatment, for by inattentive or unskilful conduct, the medical attendant may literally become an accessory.

On the perplexing subject of infanticide, our author has offered nothing new. He is of opinion that the facts to be deduced from the state of the lungs, deserves more credit and attention than it has of late been usual to accord it. In a former number of this work we have examined this subject at some length, and shown that there is scarcely any one proof or experiment, which of itself affords sufficient grounds for making up a positive opinion, but that when several are resorted to, very little uncertainty should exist. We are glad to see that our author is anxious in his directions to give the unfortunate woman every chance, that a regard for justice will allow. We are fully persuaded, that few cases of deliberate child murder have ever occurred, in which the parent was not in a state of partial insanity; most of them, indeed, may, on close investigation, be traced rather to inattention and a desire to conceal the consequences of an illegitimate pregnancy, than to any moral intention of a criminal nature.

In treating of rape Dr. Smith makes the following just remarks:—" With few exceptions, it may be said that the mere gratification of lust is rarely the impulse to the commission of this crime; or when so, probably the female herself has been to blame in encouraging or promoting its excitement. In fact it may be universally assumed, that a female cannot be violated in the true sense of the word, unless her powers of resistance be completely overcome. The evidence of medical men is rarely required in these cases, except where the injured party has been a child, as the solemn oath of the female, as to the particular nature of the assault, is the principal article of evidence."

In the second section of his work, or those cases which come under the jurisdiction of civil courts, Dr. Smith includes—mental alienation, mala praxis in medicine and surgery, survivorship, personal identity, duration and signs of pregnancy, life insurance, and feigned or imputed diseases.

Mental disorders are never precisely identical in any two cases, and hence no fixed and certain rules can be definitively laid down for their detection, though there are generally well-established and conclusive indications of the existence of such derangement applicable to, and discoverable, in every instance. By a madman, in the popular, and even legal sense of the word, is to be understood, says our author, "a person whose conduct is not under the control of his judgment, or whose judgment misdirects his deportment." It often happens that individuals may be perfectly insane on one or more subjects, and display superior correctness and propriety of thinking, speaking, and acting on all others. Here it is extremely difficult for a medical man, who has not been in the habits of constant intercourse with them, to detect the existence of the disorder. The evidence must in such cases be mainly derived from nonprofessional persons intimately acquainted with the habits and manners of the party or parties.

" In all the states of mania, however, there are certain symptoms, or physical signs, by which an intelligent practitioner will be correctly guided. He cannot erect an ideot into a man of talent; he cannot have many opportunities of observing a lunatic without finding out the lamentable distortion in that person's constitution; nor can he go far in his intercourse with the melancholic madman till he detects the force and nature of his malady; the maniac, in the full sense of the word, commonly gives little scope for the exercise of ingenuity in the development of his case; and of delirium every old nurse is a competent judge."

On mala praxis our author makes some short, but pertinent remarks, though we are sorry to see in this instance, as in some others in the work, an attempt at wit, which, to say the least of it, is out of place in a volume dedicated to such vitally important subjects: we regret to be obliged to make this observation, as we fully feel the extreme utility of Dr. Smith's labours, and duly appreciate the value of his exertions in the cause of science and justice.

Survivorship. This is a question which involves the descent of property, and may require the testimony of medical witnesses to elucidate, but unfortunately our profession seldom study such matters, and but too often in this and analogous cases, display less intelligence and acumen than the general body of their fellow citizens.

Personal identity. In these cases at first view it would be said that all persons were capable of deciding, since it may be laid down as a general proposition, that no two individuals of the human species are precisely alike; but in order to verify the dissimilarity, it may be necessary to carry the investigation beyond superficial and obvious characteristics.

Pregnancy. We are every day presented with examples of the importance of a proper knowledge of this subject, and our tribunals are often occupied with the investigation of points connected with this state. No practitioner can possibly in the present state of knowledge err in deciding as to whether a woman is pregnant or not, especially after the first three or four months, and the physician who mistakes the pregnànt for any other state, forfeits all claim to confidence in his judgment and acumen.

As to the duration of pregnancy, Dr. Smith is very decided in his opinion, we shall extract what he says on the subject, as this point has very lately been the ground of a criminal prosecution in this city. "Beyond nine months there has been great difference of opinion as to the truth of the matter; but the author has no sort of hesitation in declaring his conviction—that women do exceed the ordinary term of gestation; they certainly may carry a fœtus to the end of the eleventh, and even into the twelfth month. Further than this it is to be apprehended that evidence will be found deficient."

Feigned or imputed diseases. These seldom become subjects of legal discussion, and a knowledge of them is only useful to medical men attached to the military and naval services, or to those connected with hospitals and infirmaries. The only rule says our author, that can possibly be laid down must consist in warning all but medical men, that they must expect to go wrong if they undertake the development of the real state of the case.

As regards the points which Dr. Smith treats of under the head of ecclesiastical courts, we shall not attempt to notice them, such tribunals are unknown in this country, and when cases come before our civil tribunals they can be decided without the necessity of medical interference.

The last subject is the important one of medical evidence, a subject which has been and still is, an opprobrium medicorum. There is no situation in which a majority of physicians appear to so little advantage as in the characters of witnesses in a court of justice. We need not in this place advert to the reasons, they are but too evident, and until a proper knowledge of medical jurisprudence be considered as essential to the education of students in our profession, this evil must and will continue.

Dr. Smith very properly protests against lawyers considering what is ordinarily called experience, as entitled to greater credit than the knowledge possessed by a member of the profession, who though young may be a better authority than the mere man of experience. In the eye of the law one man of good character is as credible a witness as another, though in point of standing and of professional success there may be a difference.

In concluding these few observations and extracts from Dr. Smith's work, we will merely add that it is well calculated to be of extreme importance to legal men, as affording them a ready guide in their examinations of witnesses, as to the nature of the questions which will be calculated to throw light on the subject. To the medical man it also has this advantage, that he will not be perplexed with questions to which no definite answer can be returned. For it is well known that it is infinitely more difficult to return clear and perspicuous replies to the interrogatories of one who is wholly ignorant of the subject matter, than to those of one who is competently skilled, in the same manner as an experienced fencer finds it more harassing to parry or repel the attack of one wholly ignorant of the use of the sword, than of one who possesses equal knowledge with himself.

We think a republication of this work, altered and remodelled to suit our courts with occasional references to decisions, would be an exceedingly important addition to every lawyers library. R. E. G.

XXIV. *A Manual of Materia Medica and Pharmacy, comprising a Concise Description of the Articles Used in Medicine; their Physical and Chemical Properties; the Botanical Characters of the Medicinal Plants; and the Formulæ for the Principal Officinal Preparations of the American, Parisian, London, Dublin, Edinburgh, &c. Pharmacopœiæ; with Observations on the Proper Mode of Combining and Administering Remedies.* By H. M. EDWARDS, M. D. and P. VAVASSEUR, M. D. Translated from the French, with numerous Additions and Corrections, and adapted to the Practice of Medicine and the Art of Pharmacy in the United States. By JOSEPH TOGNO, M. D. Member of the Philadelphia Medical Society, and E. DURAND, Member of the Philadelphia College of Pharmacy. Philadelphia, 8vo. pp. 523.

Drs. Edwards and Vavasseur have displayed much skill and judgment in the preparation of this manual. Nothing new appears to be omitted, whilst the old materials have been carefully sifted, and the valuable portions alone retained. In effecting this operation, there has been little proscription even among the simples, a forbearance which we think commendable.

The professed aim of the authors was to prepare such a treatise as would prove useful to students and young practitioners, by presenting in as small a compass as possible all essential information relative to materia medica and pharmacy. This they have accomplished in a highly creditable manner, and that we are not singular in this opinion, is demonstrated by the speedy demand there has been for a new edition. It is this second edition which has furnished the text for the present translation. The authors state, that without having departed from their original plan, they have entirely re-written their manual, supplied several omissions, and rendered it otherwise much more complete. The little concord that subsists in the arrangements adopted by different writers of eminence, shows the contrariety of opinion that has subsisted in relation to the most proper mode of classifying the objects embraced in the materia medica. Neither is this point at all settled, in France at least, since in a late memoir upon the subject by M. Cap, an apothecary, of Lyons, though crowned by the Medical Society of Paris, the author comes to the conclusion, that, in the present state of medical science, it is impossible to form such a classification of remedial agents as would be found altogether perfect. The plan adopted by

Drs. Edwards and Vavasseur, it will be seen, is neither entirely original, nor, as they admit, free from imperfection. Believing that a knowledge of the most conspicuous primitive physiological changes effected on the whole or several parts of the system by the application of medical agents, furnishes the most rational basis for their arrangement, they have proceeded, as nearly in accordance with such a view as the present data permit, in making the following divisions:—

1st. *Caustics*, which, by a chemical action, produce disorganization in those parts of the body with which they come in contact.

2d. *Rubefacients* and *Epispastics*, which induce inflammation in the parts to which they are applied, without producing disorganization.

3d. *Astringents*, which, applied to the living tissues, produce a kind of fibrous constriction that is local.

4th. *Tonics*, which, by their general operation, tend to increase the energy of the organs.

5th. *Stimulants*, which excite the tissues of organs, and increase the activity and rapidity of their functions. This class they subdivide into—

General Stimulants, the action of which is determined through the whole system; and

Special Stimulants, the operation of which is restricted more particularly to one or more organs, as to the kidneys, skin, nerves, &c.

6th. *Narcotics* or *Soporifics*, which act specially upon the nervous system, tending to diminish its action essentially, or even to produce a momentary suspension of its functions.

7th. *Emetics*, which induce contraction in the stomach and abdominal muscles, and thus occasion vomiting.

8th. *Purgatives*, which produce a moderate and temporary irritation over the internal surface of the intestines, giving rise to alvine evacuations.

9th. *Laxatives*, which also produce alvine evacuations, but act rather as emollients than irritants.

10th. *Temperants*, which moderate the too great activity of organs, more especially the rapidity of the circulation.

11th. *Emollients*, which tend to soften the tissues with which they come in contact.

12th. *Anthelmintics*, which, without acting in a decided manner upon the general system, cause the death or evacuation of intestinal worms.

In the description of each medicine there is given—1st. The names under which it is most usually known, and particularly the popular, pharmaceutical, and scientific appellations, whether botanical or chemical. 2d. Its origin. 3d. When the substance is vegetable, the botanical characters of the plant furnishing it are also given: the names of the families to which the plants belong, as well as those which designate the medicinal substances derived from the mineral kingdom are, to prevent repetition, presented in synoptical tables at the close of the book. 4th. The physical properties, under which title is comprised a description of the state in which it is most frequently found in commerce. 5th. Its chemical qualities. 6th. The incompatible substances, or those with which it should never be united in a pharmaceutical preparation. 7th. Its preparation. 8th. Its mode of action on the system, and therapeutical employment. 9th. The doses in which it is administered, with the different modes of using it both externally and internally. The principal officinal preparations in which it enters as a component part, its composition and doses. Finally, some magistral formulæ for the purpose of exemplifying the manner in which it is prescribed.

What contributes to render this treatise particularly valuable, are the botanical and therapeutical contributions. Every one knows that botany is closely allied to medicine, but we have never found this alliance so forcibly exhibited as in the work before us. The student of materia medica, who might wish to enquire into the botanical characters of a plant, will find every thing furnished to his hand, without the trouble of searching into botanical treatises.

The pharmaceutical portion embraces a very great mass of information which has been judiciously extracted, and skilfully condensed from almost every respectable source. The history of each remedy is accompanied with the principal officinal preparations into which it enters as an essential ingredient, their composition, doses, &c. and so far is this carried as to include the different preparations, not only of the Paris, London, Edinburgh, and Dublin Dispensatories, but those also of Austria, Russia, Finland, Denmark, Prussia, Poland, Madrid, Holland, and even other European authorities; to all which the translators have judiciously added those of the United States. Most of the formulæ of Magendie, and those presented in Ratier's account of the Civil Hospitals of Paris, and those also of Guy's Hospital, London, will be found in this manual. It thus contains all the pharmaceutical information that the physician can desire, and in addition, a larger mass of information, in relation to the properties, &c. of the different articles and preparations employed in medicine, than any of the dispensatories, and we think will entirely supersede all these publications in the library of the *physician*.

We have thus attempted to convey some idea of the treatise under consideration, as it came from the hands of its authors, and we have spoken with the greater assurance from no short acquaintance with the original. It remains for us to say, that we believe the version has been very faithfully made, and the American translators are moreover entitled to praise for having added much valuable information relative to the medicinal preparations and plants which have been treated of by different writers on this side of the Atlantic; and in these additions they have succeeded well in following the method pursued in the original. G. E.

XXV. *De Hydrorrhea Uteri Gravidarum; commentatio inauguralis.* Auctore JOANNES BAPTISTA GEIL. Heidelburg. 8vo. pp. 54.

The affection treated of in this dissertation, consists of a discharge of water from the gravid uterus, which is neither preceded nor followed by contractions, nor by dilatation of the orifice of the womb; disturbing utero-gestation very slightly or not at all, the woman going her full time, and always having the membranes distended in the usual manner during labour. Such discharges are rarer during the early stages of pregnancy, from the third even to the fifth or seventh month, and more common afterwards: the quantity of fluid is exceedingly variable, and sometimes an almost incredible discharge takes place. In some instances this occurs at a sudden gush; in others the water dribbles away. The profluvium appears once or oftener, at different intervals, sometimes persisting for a long time, increased in quantity by violent excitement of body and mind, and the contrary; the quantity is sometimes greater at night than during the day. The cause of this condition is sometimes peculiar, and again is altogether undiscoverable. Some cases are preceded by no pain; others are preceded or followed by pains similar to those of labour. The fluid effused is generally yellowish, sometimes tinged with blood, and again perfectly limpid. In cases occurring near the full time, the fluid leaves rigid spots upon the clothes, and uniformly gives out that seminal odour peculiar to the proper fluids of the amnios.

Although this peculiar discharge has frequently been observed by very experienced men, it cannot be regarded as at all common; it might readily lead an inexperienced person to believe that abortion was about to occur, or that delivery must necessarily follow without delay. Yet it has happened that such discharges have occurred many days and weeks prior to delivery, and at the proper time the labour comes on, with properly distended membranes, as if no such effusion had taken place.

A great difference of opinion exists among accoucheurs concerning the source of these *false* or *spurious* waters, as they are called, to distinguish them from the waters within the fœtal membranes, whose displacement must necessarily be followed by parturition. Some think them to be contained between the amnion and chorion, and to flow from a rupture of the latter; others from a ruptured lymphatic, or a broken hydatid within the neck or body of the womb; others from a transudation of fluid through the amnion, &c. The opinion first mentioned, is the most generally received, because water is found between the chorion and amnion until the third month of pregnancy, and it is thought to be from its increase that such effusions arise. The writer objects to this mode of accounting for the fluid, that in various instances ova have been examined by himself and others, which had no inter-membranous fluid. But we can scarcely attribute much importance to such facts, inasmuch as these ova were thrown off by abortion before examination, and might readily lose any such fluid, either by transuding from the chorion, or by endosmosis passing into the amniotic fluid.

From a view of all the facts, the author concludes, that the discharge is from a fluid extravasated between the concave surface of the womb, and the external or convex surface of the chorion. When this collection increases to a certain degree, it escapes from the orifice of the womb, in a mass and force proportioned to the operation of the excitement of body or mind which determines it. A clear distinction between discharge of these spurious waters and those from the amnion, is to be derived from the period of their occurrence, the absence of parturient efforts, and undilated state of the mouth of the womb, as well as the slight, if at all perceptible, change in the abdominal tumour of the patient. Such discharges should cause no alarm to the patient, nor provoke any interference from the midwife.

The causes of this singular flux of water, whatever may be the immediate point at which it is secreted, are to be sought for in the general condition of the patient, her mode of life, habit of body, or the state of the bowels, womb, and adjacent organs. Most commonly it is found to occur in females of rather robust and plethoric habit, in whom full diet and want of exercise determine the secretory irritation in an organ already under a powerful healthy excitement, and relief is readily obtained by reduction of diet and other antiphlogistic measures. The disease occurring in debilitated constitutions, will of course require an opposite course of treatment.

Dr. Geil has appended to his dissertation several well-observed cases of this affection, occurring in the experience of Professor Naegele, who has also furnished him with a collection of references to high authorities who have witnessed and recorded such instances. We have not room to insert these, nor the interesting cases, (transcribed from the Journal Général de Médecine,) of uterine dropsy complicated with pregnancy.

The style of this dissertation is idiomatically pure, and neatly appropriate to the subject; showing that the author has been a familiar reader of classic Latin, and thence imbibed the correct taste and adaptness of expression in composition, which is alone to be obtained by study of the most excellent models.

J. D. G.

XXVI. *Traité d'Hygiéne Appliquée à l'Education de la Jeunesse.* Par le Dr. Simon, (de Metz.) Paris. Rouen frères, 1829. pp. 444, octavo.

The circumstances which exert an influence upon the health of both infants and adults brought together, and subjected to similar agencies, have from time to time given origin to treatises, but we believe that there has not hitherto been one devoted specially to the hygiene of youth collected in places of instruction. It is this deficiency which Dr. Simon has endeavoured to supply, his observations being restricted to the term of life embraced between the seventh year and the age of adolescence. In practice at least, the moderns appear to have lost sight, for the most part, of the great importance of physical education, notwithstanding the primary consideration attached to it by the ancients. Every one, however, who attentively considers the intimate connexion subsisting between the moral and physical organization, must be sensible that a healthy condition of body adds to the capacities and energies of the mind, nevertheless there are many who have the superintendence of education, who are intent only upon cultivating the intellectual faculties, which we often find borne down by a multitude of studies pursued at the expense of the physical energies, a course frequently ending in the most melancholy results.

The object of the present treatise on hygiene is to point out the means of correcting these evils by the judicious application of such discipline as contributes to health and to vigour of constitution, and at the same time favours the active development of the intellectual faculties. The period of life to which the treatise of M. Simon principally refers, is that at which hereditary and other predispositions and vices can be most successfully combated, and the knowledge, therefore, of the proper means to be pursued at this period, is of extreme interest and importance. We may hereafter enter into a more particular consideration of the work; at present we shall restrict ourselves to enumerating the leading topics discussed by our author.

The work is divided into two parts. The first general division embraces, 1st, a consideration of the hygienic influences of the atmosphere; 2d, those influences which are adapted to weaken or favour the effects of atmospheric agents, as abode, dress, bathing; 3d, aliments and drinks; 4th, secretions and excretions; 5th, muscular movements or exercises, and the conditions of repose and sleep; 6th, sensations and the intellectual passions and functions; 7th, the means by which education exerts its influence, including habit, imitation, curiosity, emulation, rewards, encouragements, and punishments; 8th, the duties of the physician attached to institutions for education.

The second general division is devoted to the consideration of diseases most frequent in youth: 1st, those of the lymphatic system; 2d, those of the sanguineous system; 3d, those of the nervous system; 4th, affections of divers natures. Many other topics are treated at considerable length, and in general with much good sense.

The book is deserving the attention of those engaged in the education of youth, to whom it cannot fail to supply many valuable hints and much useful instruction; but the utility of the treatise, is not confined solely to those who have the charge of seminaries of learning; it embraces a full view of the physical education of youth, and may therefore be consulted by parents with advantage.

G. E.

XXVII. *Precis Physiologique sur les Courbures de la Colonne Vertébrale, ou Exposé des Moyens de Prévenir et de Corriger les Difformités de la Taille, Particulièrement chez les Jeunes filles, sans le secours des lits Méchanique a Extension.* Par. C. Lachaise, M. D. P. &c. &c. Avec six planches. Paris, Villeret & Co. 1827. pp. 200.

In Europe, as in this country, medical men are greatly divided in opinion as to the comparative merits of the two kinds of treatment of serpentine curvatures of the spine. While some depend almost exclusively on mechanical means, others denouncing them as highly detrimental, and altogether useless, resort as exclusively to measures corroborative of the general health of the body, and to exercises which strengthen either a part or the whole of the muscles of the spine and trunk. M. Lachaise, although disposed to favour the latter plan of treatment, occasionally adopts mechanical suspension. It cannot be doubted that he who avails himself of the resources of both parties, will soonest obtain, for his patients, that health, and beauty of figure, so desirable for those who are usually the subjects of lateral curvature.

M. Lachaise claims the merit of having, in a formal manner, stated the distinction between the two kinds of spinal curve. The first produced by an irregular action of the muscles; the second by an essential alteration of the parts which compose the vertebral column. The first class he divides into several species: the right cervico-dorsal curvature, the left cervico-dorsal, the lateral dorso-lumbar, the backward convex curve, and the hollow back, or anterior curve. Besides these he has also classified the cervical curves.

As his plan of treatment consists mainly in strengthening by varied exercises those muscles which, according to his views, yield to more potent antagonists, his subdivisions are useful for the direction of the treatment.

For the right cervico-dorsal curvature, he suggests the use of the winch, placed very high, and rendered somewhat difficult to move. A similar mode of treatment will, according to our author, efface the left cervico-dorsal curvature.

The lateral dorso-lumbar curve has been, by the most able writers, ascribed to the too great force of the muscles attached to the convex side of the curve; and they have of course recommended the promotion of the muscular energy on the concave side. On this point our author's views are original. He believes that this curve is produced by the muscles of its concave side, which draw down the chest towards the pelvis; and he, consequently, advises the corroboration of the muscles of the convex side. This he effects by causing a weight to be carried in the hand of the concave side, so as to produce a leaning to the opposite side.

When the back is convex he makes his patient walk down inclined planes; and when concave, the ascent is recommended. Curvatures of the neck are treated by M. Lachaise on similar principles, and, as he states, with much success.

Of the various forms of curvature, our author esteems the anterior the most rare, and the most difficult to cure.

We are not among those who believe that exercises alone, however well-devised, will correct any spinal deformity, and we therefore regret that our author has not appealed to cases authenticated by others, for the proof of the excellency of his plan; as nothing short of such facts, so confirmed, could shake our faith in the efficacy of another practice. In truth we believe that the spine becomes curved through bad posture during hours of muscular *rest, often repeated,* and *long continued.* The muscles and ligaments differ finally, not in strength, but in length; and it is only by reversing or correcting position, by both volition and machinery, that we can rationally hope to cure lateral curves of the spine. If inequality of muscular force caused curvatures, the blacksmith and the weaver would seldom continue straight, for they exercise, almost exclusively, the muscles of the right side of the trunk. Those who have seen many cases of this disease know that it affects chiefly *females,* and that many of its subjects are robust and healthy, some of them eminently so. The pursuits and pastimes of boys produce every variety of posture, while nearly all the amusements and studies of girls are of a quiet nature, and are pursued in a common attitude. Hence the greater frequency of curvature in them, and the general resemblance in the direction of that curvature.

We join heartily with our author in his condemnation of the mechanical couches of the Maisons de Santé; and believe, with him, that the corsets and rod of Levacher, now known as the *Minerva brace,* injure the health by compressing the chest and abdomen. When machines are used, let them tie down no muscle, confine no organ so as to impair its function, and let them, if possible, admit of free exercise, and easy locomotion. In fine, while efforts are made, both by instruments and muscular training, to restore a natural shape, and to keep the form correct, until the muscles and ligaments become of equal length, let nothing be done to divest the patient of that general vigour, which lateral curves frequently leave undiminished. J. K. M.

XXVIII. *Eliae Bujalsky Tabulae Anatomico-Chirurgicae Operationes Ligandarum Arteriarum Majorum Exponentes.* St. Petersburgh, Elephant folio, pp. 32, Plates 14.

This is one of the most splendid works on surgery we have ever been called on to examine, and the information it contains is clearly expressed and systematically arranged; but it may be doubted whether the usefulness of the work is not much lessened by its gigantic size and expensive magnificence.* Nothing less, however, could be expected, as this treatise is published under the immediate patronage, if not at the expense, of the emperor and autocrat of all the Russias, Nicholas I. The copy which we have had an opportunity of examining, was liberally presented to the University of Pennsylvania by the author, and is probably the only one which will reach this country; at all events, its costliness must prevent its being in the possession of the profession generally.

The directions for taking up the great arteries are preceded by a concise statement of the anatomy of the vessels, and are given with much clearness and precision. We have not in any case observed any very striking difference between these directions and those usually laid down in our books, and shall not therefore make a transcript of them. Professor Bujalsky has enjoyed very ample opportunities of observation, during thirteen years spent as a prosector and adjunct professor of anatomy. During this period he has examined fifty instances of aneurism variously situated, and some of enormous magnitude. From these he is led to conclude, 1st, that all spontaneous aneurisms arise from ulceration of the arterial tunics; 2d, that the muscular tunic is always more injured than the others; and 3d, that he never saw aneurism consisting of a mere dilatation of the tunics, without organic lesion, although he does not pretend to assert such a condition to be impossible. According to his views, every aneurism should be preceded by inflammation of the arterial tunics, which terminating in suppuration or induration, (ossification,) the motion of the blood dilates the parts into tumours, which are modified in size and character by the extent of the ulceration and the relations of adjacent parts.

We have no doubt of the usefulness of Professor Bujalsky's anatomico-surgical tables to the surgeons of Russia, who are most probably provided with such books by the government; and we might have mentioned earlier that the text is given both in the Russian and Latin languages in parallel columns. The plates are very finely engraved, after dissections made by the author, and add greatly to the beauty of the work. Like the text, moreover, they might have been as usefully displayed in a much more convenient and portable form. The author has promised to continue his illustrations through the operations upon smaller vessels, &c. and under whatever form these be published, we shall be happy to make our readers acquainted with them. J. D. G.

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* A clear notion of the size of the page, and the type upon which the work is printed, may be formed from this fact, that with the volume expanded at one end of a sofa of usual length, I read it with perfect ease, seated at the opposite extremity, facing the book.

XXIX. *Traité des Maladies du Foie.* Par Auguste Bonnet, M. D. de la faculté de Paris, associé resident de la Societé Royale de Medecine de Bordeaux, &c. &c. Paris. Villeret & Co. 1828, pp. 201, 8vo.

Dr. Bonnet some time since published an essay on diseases of the liver, for which he received a prize medal of the value of two hundred francs from the Medical Society of Emulation. The present work is on a more extended and comprehensive plan, and is intended as "a complete treatise on the affections of that organ." We are certainly much in want of more precise and certain information relative to the characteristic symptoms of the different functional and organic changes in this important viscus, which although they can be scarcely overlooked or misunderstood, when of a high grade, yet in the present state of our knowledge it is extremely difficult to recognise the existence of certain morbid actions, which may be silently and imperceptibly deranging its functions and destroying its structure. Even in hepatitis, certainly the most common of all the disorders of the liver, there is much uncertainty and want of precision in the detail of symptoms as given by the best authors, particularly those of the incipient stage.

Dr. Bonnet has attempted to supply this deficiency, and the plan on which he has proceeded, is the only one from which permanent and satisfactory results can be expected. He is a disciple of the physiological school, although he differs from Broussais in some leading points, which we shall advert to in the progress of our notice.

The first part of his work is on irritation of the liver, in the preliminary observations to which, he maintains that whenever the organic action of a tissue transcends the normal type, without the function of the tissue being deranged, that this is not a mere *excitation* of the part, but is an irritation, without inflammation.

He divides his monograph of irritation of the liver into five parts, the first of which is devoted to the consideration of the symptoms; the second treats of its terminations; the third of its causes; the fourth of the prognosis; and the fifth of the treatment.

The first degree of hepatic irritation, according to Dr. Bonnet, is either where there is an augmentation of the organic action, but not accompanied by inflammation, or where, although there may be inflammation, it is of so slight a character as not to present the usual symptoms of hepatitis. The great difficulty is to distinguish between these states, though in a practical point of view, it is perhaps of little importance, as the same treatment is applicable to both. Dr. Bonnet thinks that the usual train of symptoms which are given as characteristic of acute hepatitis, are in fact those of a simultaneous irritation of the digestive canal, the peritoneum and of the liver, or gastro-hepato-peritonitis. He gives several cases in support of this opinion, which certainly prove that when there is an acute inflammation of the hepatic tissue, it is often propagated to the gastro-intestinal mucous membrane and peritoneum. He gives the following as the symptoms of simple acute irritation. "Bitter taste in the mouth, tongue covered with a yellow coat, bilious dejections, sometimes yellow urine, a yellow tinge around the lips and alæ of the nose; when it has advanced still further, but is yet confined to the hepatic tissues, there is superadded a feeling of general uneasiness, unpleasant feeling in the right hypochondriac region, a deep-seated, dull pain in this part, at first only felt when pressure is made, but gradually becoming permanent; when it has become still more violent, and the peritoneum and alimentary canal are implicated, the symptoms are of course of a mixed character, but those which appertain to the inflammation of the liver, are thus given by our author; "a dull, deep-seated pain, usually in the right hypochondriac region, but sometimes in the epigastric or even the left hypochondriac, accompanied by feelings of great distress, fulness, suffocation, and a difficulty or impossibility of lying on the left side, bitter taste in the mouth, yellow colour of the tongue, yellowish tinge of the eyes and skin, whitish, or bilious and acrid stools, yellow, scanty urine, having an oily appearance, and depositing a reddish sediment." These symptoms, however, are not to be found in all cases, and the only pathognomonic signs on which perfect reliance can be placed, are pain and increase of volume in the liver. Dr. Bonnet gives very minute directions as to the method of making examinations in cases of hepatitis, which are worthy of attention.

Hepatic irritation may terminate very variously, as in hypertrophy, obstruction, or any of the usual consequences of inflammation, but it most commonly becomes chronic, particularly where it depends on a gastro-intestinal lesion: when chronic hepatitis lasts for a length of time, the liver generally becomes very much enlarged. It may also pass into a fatty state, (l'état graisseux,) this termination, according to M. Louis occurs most frequently in females; in forty-nine cases he observed, ten only being males.

Dr. Bonnet next treats of the causes of irritation of the liver, and reduces them to very few, as blows, wounds, &c. Almost all those given by other authors he thinks operate in a secondary manner, by causing a gastro-enteritis or peritonitis: thus he says a residence in tropical climates does not induce disorders of the liver, except from its inducing a derangement of the digestive canal. In fact, one of the great objects of Dr. Bonnet's treatise appears to be, to prove that the most frequent cause of hepatitis, is some inflammation of the gastro-intestinal mucous membrane. The following remark, if correct, merits attention. A primary inflammation of the liver is almost always of an acute character, whilst secondary hepatitis, on the contrary, assumes a chronic form at its very commencement.

In mentioning the differences that exist between his theory and that of Broussais, the author bestows upon himself most unlimited praise, and completely spares his readers all trouble in making up their opinions as to his merits. We give an extract as a specimen of his self-gratulation. "The theory of this author, (Broussais,) differs in many respects from that I propose. In the one, only one degree of hepatic irritation is recognised; in the other this irritation is traced from its commencement, followed in its progress, and viewed in every stage and form. In the one, a great difficulty is encountered, the coincidence of wounds of the head with abscess of the liver; in the other, this difficulty is attempted to be surmounted, and with success. Finally, the one is susceptible of several solid objections; the other affords every explanation, and is always in accordance with facts."

There is little or nothing new in Dr. Bonnet's account of the prognosis in diseases of the liver; we therefore pass it over without observation.

The treatment he recommends is of course founded on his theory of the implication of the mucous membranes of the abdomen. This is we think the best part of his work, and is worthy of an attentive perusal. It is, as may be supposed, in strict accordance with the doctrines of the modern physiological school, and he reprobates in the strongest manner the perturbating system. "One of the principal causes of want of success in the treatment of chronic hepatitis, arises from attempting to combat it by a host of remedies, whose peculiar properties irritate the alimentary canal to a great degree." He also thinks that resolving plasters and blisters are of little utility in chronic inflammations of the liver.

The next portion of his essay is devoted to the consideration of passive sanguineous congestions of the liver. The liver, it is well known, is very liable to engorgements, perhaps more so than any other part of the body, many of these our author thinks occur without any previous or existing irritation of this organ. Their general causes, he says, are some obstacle to the course of the blood, or from a scorbutic diathesis. "These are almost all incurable, and hence the hepatic congestion is of little consequence."

The remainder of the work contains observations on hepatic asthenia, atrophy of the liver, hæmorrhage of the liver, biliary calculi, hepatic colic, ascites from hepatitis, diseases of the biliary ducts, icterus, and bile. Dr. B. rejects all the modern theories of the causes of icterus, and asserts that the only one that ought to be adopted is that of the ancients, the actual mixture and circulation of the bile with the blood. R. E. G.

XXX. *Méthodes de Traitement proposées pour guérir la fistule Urinaire Vesico-Vaginale.* Par M. Le Professeur Naegele de Heidelberg. Paris, 4to. pp. 8. Pls. liths. II.

Vesico-vaginal fistulæ have long been regarded as among the most incurable of surgical diseases, and are productive of such cruel sufferings to patients, that every attempt made for their relief should be received with attention. The method proposed by Dickson, of curing such fistulæ by the use of the flexible catheter, can only be available where there has been very slight loss of substance. Desault's plan of applying a cylinder of cork covered with wax or gum elastic to produce approximation of the lips of the wound, is generally unsuccessful, and if a cure be obtained by its use, it is not sooner than at the end of six months or a whole year. Henry van Roonhuysen appears first to have proposed the suture, and described a mode of operating, but it is doubtful if he ever actually operated. Christopher Voelter proposed that when the neck of the bladder was torn, the edges of the wound should be united by some stitches made with sharp curved needles and a waxed ligature. He once performed this operation unsuccessfully, which is not surprising, since it is almost impossible to pierce the edges of the opening properly, so deep within the vagina, with a simple curved needle held between the fingers, unless it were done soon after parturition while the vagina remains much dilated.

Professor Naegele has operated successfully, with and without the suture, to supply the place of which, when the fistula is small, he employs a pair of uniting forceps, devised for the purpose. These are so contrived as to pinch together the edges of the fistula with any degree of tightness, after these have been made raw for the purpose, and are detached from the handles, to remain in the vagina till the edges have cohered. Previous to their application, a silver catheter is passed into the bladder, and the forceps are made to grasp the prepared edges of the fistula in such a manner as to bring them together below the inferior surface of the catheter.

When he uses the suture, Professor Naegele employs a peculiar *bistouri caché* to freshen the edges of the opening, and curved instruments for conveying the ligature, somewhat similar to those used in staphyloraphy, to which the operation bears considerable resemblance. The want of his illustrative plates renders it useless to attempt a specific description of these instruments, and his exact mode of proceeding. The patient is placed as in the operation for lithotomy, though it is unnecessary to tie the limbs; a catheter is passed into the bladder, and retained there, while the fistula is examined, and the edges laid bare with the curved and pointed scissors or bistoury. The ligatures are then passed by the aid of the peculiar curved and pointed instruments, and the edges of the wound drawn together under the catheter. If the vagina be previously dilated by the use of a gradually enlarged sponge tent, it appears to us that the operation might be rendered much easier, and might be performed with instruments less complicated and difficult of management than those proposed in the paper before us.

J. D. G.

XXXI. *Medico-Chirurgical Transactions.* Published by the Medico-Chirurgical Society of London. Vol. XV. Part I. London, 1829.

The Medico-Chirurgical Society of London have just presented to the public the first part of the fifteenth volume of their transactions, and in pursuance of the plan we have adopted, we shall lay before our readers a brief analysis of its contents.

The initial article is entitled a pathological enquiry into the secondary effects of inflammation of the veins; and is by James M. Arnott, Esq. No inconsiderable degree of doubt prevails as to the cause of the alarming constitutional affection frequently attendant on inflammation of the veins; while the origin of those abscesses and inflammations in distant parts, which sometimes occur after injuries, is involved in still deeper obscurity. A desire to remove the doubts which attend the former, and to dispel the obscurity which surrounds the latter, has given rise to Mr. Arnott's investigations.

Mr. A.'s attention was more particularly called to this subject by some occurrences which marked the course and termination of three fatal cases of inflammation of the veins after venesection, which he had an opportunity of observing. In one of these a deposition of pus, without signs of previous inflammation, took place under the skin of the opposite forearm;—in another, destructive inflammation of the knee joint, with a deposition of pus into the cellular substance of the thigh;—and in the third, collections of matter at several points in the substance of the lungs;—while in all three, the inflammation of the vein did not extend to the heart. These circumstances suggested inferences as to the cause and nature of the constitutional affection in cases of phlebitis, and views with regard to the origin of abscesses in remote situations arising from injuries, which led to an examination of the evidence on both these subjects, to be found in the writings and observations of others. The results of this investigation Mr. A. has presented to the society.

He divides his communication into two parts; in the first he investigates the cause of the constitutional affection attendant on phlebitis, and in the second, the origin of those abscesses and inflammations in distant parts which sometimes succeed to injuries. He commences the first part with a detail of the views entertained by the most eminent writers relative to the cause of the constitutional affection attendant on inflammation of veins, and then relates seventeen cases of fatal phlebitis arising from venesection or wounds; some of them observed by himself, the others selected from various sources. These cases justify the inference drawn from them by Mr. A. that death does not result from the extension of the inflammation of the vein from the heart; since, of ten cases which followed venesection, in not one of them was the superior cava affected, much less the heart; and in half this number, inflammation had not reached to the subclavian, or even to the axillary vein. In three cases, where the inferior cava had become inflamed, in one only is the heart represented as implicated, and in this, though it is said that "there were marks of diffused inflammation extending to the right auricle of the heart," the signs of adhesive inflammation terminated at the entrance of the emulgent vein.

In relation to the question, whether the secondary affections in this disease, depends, as has been alleged, upon the entrance of pus into the circulation, it may be remarked, that in fourteen cases out of the seventeen, pus, or pus in conjunction with lymph, was present in the vessel after death; in two instances no mention is made of pus, the contents of the veins being described in one as "adhesive matter," in the other, as "flakes of lymph:" in one case only, where the inflammation occurred in a vein previously diseased, or in a vein, the branches of which at least were varicose, neither pus nor lymph was found in the vessel.

It results from this, Mr. A. thinks, "that although pus is present in the veins in the great majority of fatal cases of phlebitis, and that although it should appear from the character of the general symptoms, and the effects produced upon animals, by the injection of a similar fluid into their vessels, that the passage of pus into the circulation is probably the principal, yet the circumstances do not justify us in regarding it as the sole cause of the secondary affection." He adds, "if then, the constitutional affection in phlebitis is to be explained by the introduction of a fluid into the circulation, which contaminates the blood, and operates as a poison, this property must be attributed to inflammatory secretions generally from the vein, although not purulent."

Mr. A. here states a curious fact which had not previously been observed; he says, that according to his observation, the inflammatory changes in the coats of the vein, "are limited by the passage of a current of blood; where a trunk is concerned, the boundary being the entrance of a branch, and where a branch is concerned, the boundary being the junction of this with the 'trunk.'" He does not, however, attempt to explain "how it happens that this same inflammation, which has stopped short at the entrance or passage of a current of blood, may not only already have passed several currents, but have extended itself into the vessels conveying them."

The secondary affection in phlebitis usually shows itself in from two to ten or twelve days after the receipt of the injury which has occasioned the inflammation of the vein; when the vessel has been previously diseased, sometimes sooner. The symptoms are thus described by Mr. A.

"Great restlessness and anxiety, prostration of strength and depression of spirits, sense of weight at the præcordia, frequent sighing or rather moaning, with paroxysms of oppressed and hurried breathing, the patient at the same time being unable to refer his sufferings to any specific source. The common symptoms of fever are present, the pulse is rapid, reaching sometimes to 130 or 140 in a minute, but is in other respects extremely variable. There is often sickness and violent vomiting, especially of bilious matter. Frequent and severe rigours almost invariably occur, sometimes to the number of three or four in the course of a few hours. The general irritability and deep anxiety of countenance increase, the manner is quick, and the look occasionally wild and distracted. When left to himself, the patient is apt to mutter incoherently, but on being directly addressed, is found clear and collected. The features are pinched, and the skin of the whole body becomes of a sallow, or even yellow colour.

"Under symptoms of increasing debility, and at a time when the local affection may appear to be in a great degree subsiding, secondary inflammations of violent character, and quickly terminating in effusion of pus or lymph, very frequently take place in situations remote from the original injury; the cellular substance, the joints, and the eye have been affected, but it is more particularly under a rapidly developed attack of inflammation of the viscera of the chest, that the fatal issue usually occurs. Whether this is observed or not, death is always preceded by symptoms of extreme exhaustion, such as those of a rapid feeble pulse, dry, brown, or black tongue, teeth and lips covered with sordes, haggard countenance, low delirium, &c."

The duration of this affection varies considerably; in the cases cited, death occurred at different periods between the fourth and fiftieth day.

The morbid appearances after death are very remarkable, and such as are usually regarded to be indicative of the recent existence of violent inflammation, and that too in various organs, and distant parts of the body. These are:—

"In the chest—effusions of sero-purulent fluid into the cavities of the pleuræ and pericardium, exudation of coagulable lymph on the surfaces of the heart and lungs, hepatisation of the latter organ, the infiltration of pus into its tissue, or small collections like a mixture of pus and lymph. Such appearances presented themselves in ten cases out of seventeen; in three the thorax was not examined; in two the condition of its contents is not noted; and in two, no diseased appearances were observed.*

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* A fluid state of the blood which has been remarked after death from phlebitis, is neither invariably noticed, nor does it prevail throughout the whole of the circulating system. The cavities of the heart usually contain coagula. The tendency to fluidity—a change in the colour of the blood—and a staining of the vessels, circumstances occasionally to be met with after death from phlebitis, Mr. A. says, he is unable at present to appreciate the value of, as evidences of disease.

In the cellular substance, intermuscular as well as sub-cutaneous—pus and sero-purulent fluid has been extensively deposited, sometimes in collections like abscesses, at others, appearing more like an effusion into its cells, than as resulting from the common process of inflammation. These collections most frequently occur in the vicinity of the joints. In two cases pus was deposited under the skin of the opposite forearm, near the wrist; in one, with inflammation of the knee-joint, into the intermuscular cellular substance of the corresponding thigh, and into that external to the joint of the opposite shoulder; in one, into the intermuscular cellular substance of the opposite leg and of both forearms; in one into the interfibrillar cellular tissue of the corresponding pectoral muscle, and in another, between the sternal extremities of the two first ribs and pleura.

"A disease of the joints, consisting of a most violent inflammation of the synovial membrane, its distention with purulent matter, destruction of the cartilage and baring of the bones. These changes too, taking place in the brief space of a few days, the knee having been first attacked with pain four days before death, which again took place in sixteen from the date of the injury of the vein which caused its inflammation. In two other cases there was affection of the knee-joint, but the parts were not examined after death.

"In the eye—opacity of the cornea, injection of its blood-vessels, and destructive changes in its humours or coats, occurred in one.

Besides these affections, there were found in five instances, within the cranium, opacity and thickening of the tunica arachnoides, effusion between it and the pia mater, and increased secretion into the ventricles. In nine, the head was not examined; in three, no morbid appearances were noticed.

"The morbid appearances above described are, as it will have been remarked, met with singly or variously combined, in particular cases; and from the variety of situations in which these secondary local affections have been observed, it seems probable that there are few organs or parts in which they may not occur. But although some of them are generally found present, the constitutional affection in phlebitis occasionally proves fatal, without a secondary local affection having developed itself."

On considering the progress of the secondary affection in phlebitis, such as it has been described, Mr. A. thinks it is impossible not to be struck with the resemblance which this bears to that of diseases arising from the inoculation of poison. There is, he says, "in the first place, a local affection, (it may be of a very trifling extent and severity,) upon which the secondary affection supervenes in the form of great constitutional disturbance, followed by violent inflammations in one or more parts of the body. With this general resemblance to inoculated diseases, there is one to whose characters it more particularly approximates; viz. that which arises from the operation of poison received in wounds from dissection. We have an equally early appearance, and an equally rapid development of symptoms nearly similar, succeeded by destructive inflammations in one or more situations remote from the primary affection, with equally fatal results. These secondary inflammations very much accord also in the parts which they attack. If the cellular substance is in a particular manner affected, in consequence of the introduction into the system of the poison of dead animal matter, this also occurs as a consequence of phlebitis, and some of the more obscure affections of the first class of cases may even perhaps be elucidated by the events of the latter."

From the foregoing facts and arguments, Mr. A. concludes, that death, in cases of phlebitis, does not take place from the inflammation extending to the heart; whilst the history and character of the symptoms which precede this event, the very small portion of vein which is sometimes found to have been inflamed, and the general presence of pus in its cavity, all tend, he thinks, "to establish, that the entrance of this fluid into the circulation is the principal cause of the alarming and fatal consequences of phlebitis, a similar influence being perhaps also possessed by any inflammatory secretion from the vein."

Part II. *On the origin of those abscesses and inflammations in distant parts which sometimes occur after injuries.* We pass over the different views that have been entertained on this subject, to the consideration of those entertained by our author. The secondary affections succeeding to wounds, are, effusions of pus and sero-purulent fluid into the cavity of the chest, and inflammation of the pleura; similar affections of the cellular substance; effusion of pus into, and inflammation of the synovial membranes; depositions of pus and tuberculous abscesses in different organs of the body, viz. the brain, lungs, heart, liver, spleen, and kidney.

Now, when it is considered, says Mr. A. that abscesses have formed in various parts of the body from the ligature merely of a vein, as the saphena—that pus was deposited under the skin of the forearm in one case of phlebitis—that rapidly destructive inflammation in the knee joint took place in a second—that the same has occurred in the eye in a third—"that where the symptoms of inflammation of the chest were observed during life, the effects witnessed, on examination after death, were of very disproportionate degree and extent—and that effusions of coagulable lymph, and sero-purulent fluid into the chest, together with abscesses in the lungs, were found where no symptoms had indicated their existence;—I say, when it is considered that *all* these consequences ensued from so simple and definite an injury as the puncture, division, or ligature of a vein, it is impossible to resist the supposition that, where similar secondary affections have succeeded to a more extensive wound, they may in reality have originated in the same cause, viz. inflammation of a vein or veins."

If such a view of the subject be correct, we ought to have, says Mr. A. on the one hand, in cases where the consequences already mentioned have succeeded to wounds and injuries, whether of the extremities or head, to find evidences of inflammation of the veins of the part which had been primarily or mechanically injured; and, on the other, to meet with similar secondary affections in cases where inflammation of the veins is known to be of common occurrence, as after parturition. That this is actually the case Mr. A. proceeds to show.

Affections of the viscera, of the joints, and cellular substance, after injuries of the extremities. Four cases are here related of secondary affections of the viscera after injuries of the extremities, in connexion with inflammation of the veins in the wounded limb.

Affections of the viscera, of the joints, and cellular substance, after injuries of the head. Systematic writers afford us no information relative to the nature of the injuries of the head, to which secondary affections of the viscera, of the abdomen, and chest succeed, or to the circumstances under which these occur. To supply this deficiency, and to enable us to arrive at more satisfactory conclusions, as to the origin and cause of secondary affections in distant parts after injuries of the head, Mr. A. has collected from various sources thirty-three cases, the more important particulars respecting which, he relates in his paper.

"From a consideration of these cases, it appears that affections occurring as secondary to injuries of the head were observed, in twenty-one, seated in the abdominal viscera;* in five, in the thoracic; and in six, in the abdominal and thoracic conjointly. That they consisted of collections of pus in the liver and in the lungs; and of effusions of pus and sero-purulent fluid into the cavities of the chest. That combined with some of these, there was further observed, a deposition of purulent matter, in one case, in the substance of the heart; in one, in the kidney; in one, in the spleen; and in one, under the integuments of the back; in one, albuminous effusion on the surface of the intestines; and in one, inflammation of the liver, without the formation of matter. In two cases, inflammation of the surface of the liver without suppuration was the only morbid appearance observed. In one case, an affection of the joints, and the deposition of pus into the cellular substance around them occurred without any disease of the abdominal or thoracic viscera having been noted.

"The injury which the head had sustained in these cases consisted, in twenty-three, of fracture or fissure of the cranium, in all compound, with the exception perhaps of two, where the circumstance is not stated. In ten, the osseous covering of the brain was neither fractured nor fissured; but with the wound of the soft parts, which uniformly existed, there had been in several a portion of the outer table and diploe sliced off, whilst in all, the bone seems to have been exposed. The wound of the soft parts was in several instances of trifling extent, and had, in some nearly, and in one actually healed over when the unfavourable symptoms commenced; but in these cases disease of the bone seemed to have remained, as the pericranium now became detached. With regard to the morbid appearances within the cavity of the cranium, it will be sufficient to state, that whilst these vary considerably, in several there was inflammation simply of the dura mater, without any appearance of purulent matter, and that in three instances no diseased changes whatever were observed. In short, the only circumstance these thirty-three cases have in common is a wound of the soft parts.

"The general course of these cases seems to have been this, and in the great majority, twenty-four, it is so stated, that the patient for some time did well, having recovered his consciousness, where this had been lost, which was frequently not the case, was free from fever, and the wound suppurating kindly; that afterwards unfavourable symptoms took place, consisting of fever, rigors, nausea and vomiting, delirium, yellow colour of the skin, and sometimes, shortly before death, pain in the right hypochondrium, or affection of the chest. There was some difference in the period at which these symptoms appeared; but of nineteen cases, the earliest of which was the seventh, and the latest the twenty-fourth day, the average was between the thirteenth and fourteenth day after the accident. The average period of the fatal termination of the same cases was between the twenty-second and twenty-third days, the earliest being on the fifteenth, and the latest on the thirty-seventh subsequent to the injury. In one instance, not included in the above number, the patient did well until the eightieth day, when on an attempt being made to remove a portion of bone, adhering to the dura mater, general disturbance took place, and death in a few days. In another exception to the more ordinary periods, the same event occurred four months and a half after the receipt of the injury."

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* Although these thirty-three cases show the nature of the secondary affections succeeding to injuries of the head, they cannot be considered as offering a fair representation of the comparative frequency of the occurrence in the abdominal and thoracic viscera. Previous to the time of Morgagni, abscess of the liver subsequent to such injuries, had in a measure engrossed attention, and accordingly out of thirteen cases from writers previous to his time, in twelve, disease of the liver is noted, and in two of these only, the condition of the thoracic viscera mentioned.

From the preceding summary Mr. A. thinks it will appear, that abscesses and inflammations occurring in the viscera of the abdomen and chest, after injuries of the head, present a resemblance to similar affections succeeding to wounds of other parts of the body, sufficient to justify the inference, that they arise from the same cause. That cause Mr. A. conceives to be inflammation of the veins—the consequent production of pus in their cavities, and the entrance of this into the circulation. In accordance with this view, it may be remarked, that the only two cases of those cited by Mr. A. in which the state of the part is described, inflammation of the superior longitudinal sinus existed, its cavity, in both instances, containing purulent matter; in the one, firm, fibrinous coagulum, and in the other, with a layer of organized lymph on its inner surface.

Affections of the viscera, joints, eye, cellular substance, and skin after labour. Inflammation of the veins of the uterus appears to be not an unfrequent occurrence; those, however, who have treated of the subject, have had chiefly in view the primary local affection and morbid appearances, yet Mr. A. says, there is sufficient evidence to show that inflammation and suppuration of these veins also, are followed by various secondary affections. Four cases in support of this are here noticed; in one, abscess in the liver was found with inflammation of the uterine and spermatic veins; in the second, abscesses of the right lung, with inflammation of, and purulent effusion in, the right spermatic vein; in the third, gangrene of the lung succeeded to inflammation and suppuration of the left spermatic vein; in the fourth, a small collection of matter between the neck of the bladder and symphisis, occurred with pus and sero-purulent fluid in the left spermatic vein.

The fact of an affection of the joints occurring after injuries, has been noticed by several writers; four cases are referred to by Mr. A. who considers the disease of the joints in these cases, as connected with inflammation and suppuration of the veins of the part which had been the seat of the mechanical injury; but it must be confessed that sufficiently conclusive evidence of the correctness of that opinion has not been adduced.

Mr. A. next procceds to show from various writers that a violent and destructive disease of the joints takes place in the puerperal state. That this affection of the joints is connected in puerperal women with inflammation of the veins, Mr. A. thinks, "there is an appearance of direct evidence in two of the cases related by M. Velpeau, in his paper on Phlegmasia Alba Dolens, although the description is somewhat incomplete. In one of these, death took place on the sixtieth day after labour, in the other on the twenty-sixth, under great constitutional disturbance and exhaustion. In both, purulent matter was contained in the hypogastric and femoral veins. In the first case the interpubic cartilage was softened, and pus was found in this situation; the same appearances were observed in the left sacro-iliac symphysis; the hip-joint, also, contained purulent matter. In the second instance, the sacro-iliac and pubic symphyses were in a state similar to that just mentioned."

The last circumstance to which Mr. A. alludes, is the occurrence in the puerperal state of a disease of the eye. In one case referred to, in which there was inflammation and suppuration in the vena saphena, the cornea became opaque, the vessels of the conjunctiva injected, and after death destructive changes were found within the globes. In another case which is related, the left eye was completely disorganized, arising, Mr. A. thinks, from inflammation of the jugular vein; the evidence does not, however, appear conclusive: we shall give the case in our periscope, (Dep. Pathology,) that the reader may judge of this point.

Such are the facts which have induced Mr. A. to conclude, "that the inflammations and abscesses which arise in remote situations, after injuries, whether of the extremities or of the head, or after the *process of parturition*, are attributable to the existence of phlebitis in the part of the body primarily affected."

That the facts fully justify such a conclusion, we should feel some difficulty in admitting; but even if the inference be deemed legitimate, it remains to be explained how phlebitis acts in giving to some of the secondary affections their peculiar characters—how, for instance, it sometimes induces depositions of pus and lymph, unattended by those changes in the texture of the parts which usually precede the production of these fluids; for it cannot be supposed that the matter so deposited is actually that which has been brought into the circulation from the inflamed vein or veins—how it induces the disease of the eye in which pus is not deposited—or finally how pus circulating in the general system determines disease of, or depositions in, certain organs in preference to others, and these organs not always those nearest to the seat of injury.

The second article is entitled "A contribution to the Pathology of Phlegmasia Dolens," and is by Robert Lee, M. D. Physician-accoucheur to the British Lying-in Hospital. The object of this paper, which consists principally of five cases, appears to be to prove that inflammation of the coats of the iliac and femoral veins in puerperal women, gives rise to all the phenomena of genuine phlegmasia dolens. This subject has been so ably discussed in the excellent paper of Dr. Dewees, in the original department of this number, that it is unnecessary to enquire here into the correctness of that position. We shall merely remark, that we think that sufficient evidence can be adduced to show, that the disease consists essentially in an inflammation of the lymphatics or white capillaries of the cellular tissue of the thigh.

The succeeding paper is an account of an "analysis of a quantity of fluid drawn from a hydrocele of some years standing," by J. Bostock, M. D., F. R. S. We pass over this paper as of little or no practical value.

The fourth article is on the use of the subcarbonate of iron in tetanus, by John Elliotson, M. D., Cantab., F. R. S., &c. &c. This communication consists of the account of two cases of tetanus treated with large doses of subcarbonate of iron; the patients got well. That they were cured by the medicine administered, we cannot entertain any suspicions. A third case is given, in a postscript, in which the same treatment was tried, but the patient died.

The fifth communication is an account of a case of aneurism by anastomosis of the forehead, treated by the application of ligatures, by B. C. Brodie, F. R. S., Surgeon to the King, &c. In 1809, a girl about five years of age received a severe blow on the forehead, which was followed soon afterwards by a small pulsating tumour, not larger than a pea, at the seat of injury. For several years it remained stationary, but in 1821, it had evidently increased in size, and an attempt was made to cure it by pressure, but without success. In 1824, the tumour still continuing to increase, another attempt to restrain its growth by pressure was instituted, but it was equally fruitless. In June, 1826, the disease having made still further progress, Sir Astley Cooper applied a ligature, at four different times, round each of the four principal arteries by which the tumour was supplied.

"The result of these operations was, a slight diminution in the size of the tumour, and some relief from pain; but even this favourable change was of short duration. In the course of the winter of 1827, the tumour again grew larger, and the painful sensations returned with redoubled violence, attended with a constant sense of weight over the eyes, and excessive depression of spirits. Occasionally there were paroxysms of pain still more violent than what was usually experienced, and followed by a state of extreme languor and exhaustion."

The patient remained in this state, except that the tumour continued slowly to enlarge until October, 1828, when she was seen by Mr. Brodie. "The tumour was now bigger than a large double walnut, occupying a spot on the right side of the forehead, immediately below the margin of the hairy scalp. When the fingers were applied to it, they received an impression as if it was composed of a mass of tortuous vessels, and a strong pulsation was perceptible in every part of it. The skin covering the tumour was thin, and on some occasions, as in coughing, when the vessels were unusually distended, it appeared as if on the point of bursting. When the scalp was shaved, large and tortuous arteries were to be seen, even from a considerable distance, passing into the basis of the tumour, in every direction, from each temple, from the orbit of the right eye, and over the crown of the head from the occiput. Pressure being made on the two temporal arteries at the same instant, the pulsation of the tumour was perceptibly, but not greatly, diminished. There was a constant sense of weight and pain in the forehead, and the latter was very much aggravated by pressure on the tumour, especially on a particular spot towards its upper edge."

Mr. B. thought that there was no reason to expect advantage from any operation which had not for its object the complete extirpation and removal of the diseased structure. But the attempt to accomplish this object by the knife, would necessarily be made at the risk of a most alarming hæmorrhage; and the application of the actual cautery, or of caustic, would not only be uncertain as to the result, but, if carried to a sufficient extent, completely to answer the intended purpose, might occasion such injury to the bone and periosteum as would be productive of much subsequent inconvenience, if not actual danger, to the patient. He therefore determined to endeavour to extirpate the tumour, by means of ligatures so applied as to produce the complete strangulation of it at its base. Accordingly, on the 15th of October, "a long steel needle the length of which was about double the diameter of the tumour, was passed between it and the periosteum, penetrating the skin on each side. By means of this needle, the tumour was raised as much as possible, and a second needle was introduced in the same manner, but beneath, and at right angles to the first. A very strong silk ligature was then bound several times round the base of the tumour below the needles as tight as it could be drawn. The tumour immediately assumed a purple colour, as if in a state of strangulation. The operation occasioned great pain both at the time and afterwards; but from the instant of the ligature having been applied, the peculiar sufferings occasioned by the disease were at an end.

"In the evening the pulse being strong, the skin hot, and the pain caused by the ligature very severe, some blood was taken from the arm.

"October 16th. The pain was somewhat abated, the tumour had assumed a dark colour, and had begun to shrink.

"October 17th. The tongue was furred, the pulse hard and frequent, and the skin hot. More blood was taken from the arm.

"October 18th. All the arteries entering the tumour had either ceased to pulsate, or pulsated less strongly than before, with the exception of those at the upper part. Concluding from this last circumstance that the strangulation was not every where complete, and that a still greater degree of compression was necessary, I armed one of the needles with a strong double ligature, then drew it through, and having removed the needle, tied the ligatures one on each side.

"October 20th. The other needle was armed in the same manner, and by means of it another double ligature was passed through the base of the tumour and tied like the former one.

"October 22d. The slough had begun to separate at its edges, and all severe pain had ceased. The pulsation at the arteries at the upper part was greatly diminished.

"October 26th. The slough came away without the smallest hæmorrhage. Dry lint, with strips of adhesive plaster over it, was applied to the ulcerated surface.

"In the course of a few days the ulcer had assumed a healthy appearance, and had begun to granulate.

"The appearance of the ulcer was very carefully watched, and two or three times the nitric acid was applied to some spots on its surface, in which there was an appearance that led Mr. Keate and myself to suspect that there might be a disposition to reproduce the original disease. The sloughs made by the nitric acid soon separated; the sore continued to heal, and the pulsation of the arteries in the neighbourhood to diminish.

"December 2d. The cicatrix was completely formed, and nothing unusual was to be observed, except that between it and the eyebrow there was a slight appearance of fulness, manifestly depending on the skin at this part having been for a long time much distended, and having not yet returned to its original dimensions. There was no more pulsation in the arteries, which had formerly been so much enlarged, than in those of the other side of the forehead, and the patient was free from pain and all other inconvenience."

Article sixth is an account of two cases of fracture of the thigh-bone, taking place without any violence, in which a diseased state of the bones appears to have been the predisposing cause of the fracture, and concurring with cancer in the breasts in both patients; by Thomas Salter, Esq., F. L. S. One of these patients was eighty-five, the other fifty-six years of age; they both suffered much from previous pain and lameness.

The concluding article consists of observations on the local diseases termed malignant; by Benjamin Travers, F. R. S., &c. This paper, of which part only is published, is highly interesting, but does not admit of analysis within the limits to which we are at present restricted. When the paper shall be completed, we will probably present a sketch of the views entertained by the author.

XXXII. *Journal der Practischen Heilkunde.* Herausgegeben von C. W. Hufeland und E. Osann. Berlin. Small 8vo. in Nos. of 8 sheets.

This is one of the oldest and most respectable of the German journals, having reached its sixty-eighth volume; of which we have received five numbers, the latest being for May, 1829. It is published monthly, in numbers containing eight sheets, small octavo or duodecimo, printed in the Roman character, upon rather coarse paper, and costs fifteen rix dollars, sixteen groschen per annum. The contributions to this journal of practical medicine, will bear comparison with the best of the periodicals of the same country, and it has been the vehicle by which many valuable observations and improvements have been communicated to the profession. The editors are physicians of much experience, who have occupied places of public trust, in which they have enjoyed excellent opportunities for observation and experiment, and are well qualified to conduct a work of this kind. Along with this journal, devoted exclusively to original communications and criticisms, they also regularly issue the following work:—

XXXIII. *Bibliothek der Practischen Heilkunde.* Herausgegeben von C. W. Hufeland und E. Osann.

This Library of Practical Medicine, is filled with critical reviews of new books, analytic extracts, and short literary notices, and appears in monthly numbers containing four sheets. In this publication the editors give the most ample proofs of their critical abilities, which are of a high order, and exercised in a liberal spirit. The most valuable part of the work, perhaps, is the annual scientific survey or review of the condition and progress of medical science during the preceding twelvemonth. This survey is extended to the medical works produced throughout the world, from the largest systematic treatises to the smallest and most fugitive pamphlets and essays. The last of these universal surveys we have received, is that for 1827, and with the titles of the books referred to in the text, it occupies the tenth, eleventh, and twelfth numbers, (published together,) of Vol. 60. A more complete and satisfactory production of the kind is scarcely to be desired.

In addition to the two preceding periodicals, the same editors publish a third, devoted to Surgery.* This we have never seen; though by a title page belonging to it, attached accidentally to one of the other journals, it has reached the sixty-first volume, or is now rather more than thirty years old, if, as is usual, two volumes appear annually.

For the most interesting articles published in these journals, we must refer readers to our periscope, for whose enrichment in every thing practically useful, new, and improving, the editors regularly make the most strenuous efforts, extending their enquiries and researches to every accessible source, without reference to difficulty or expense. J. D. G.

XXXIV. *Handbuch der Anatomie des menschlichen Körpers, zum Gebrauch der Vorlesungen,* ausgearbeitet von JOHANN CHRISTIAN ROSENMULLER, M. et C. D. Professor der anatomie in Leipzig, &c. &c. Vierte vermehrte Auflage herausgegeben von D. ERNST HEINRICH WEBER, Prof. &c. Leipzig, 1828. 8vo. pp. 564.

This is one of the most excellent "Hand-books" of anatomy we recollect to have examined, and the popularity it has enjoyed in Germany since its first publication is well merited. A new edition has appeared there almost annually since the first; the fourth, enlarged and improved by Professor WEBER, was published last winter. While engaged in teaching anatomy, two years since, the writer was struck with the peculiar fitness of Rosenmuller's Hand-book for students attending lectures, and commenced a translation of it, which would have been published long ago, but for the interruption caused by severe and protracted illness. The reception of the last edition, and a conviction that the service will prove acceptable to a large number of the profession, have induced him to resume his intention of publishing the translation. This, it is expected, will be rendered still more valuable by the addition of a set of graphic illustrations of the muscles, on a plan altogether new in this country.

J. D. G.

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* The title is rather singular if the opinion we have formed of its age be correct; "Neues Journal der Practischen Arzneikunde und Wundarzneikunde," &c. that is, *new* Journal of Physic and Surgery.

QUARTERLY PERISCOPE.

FOREIGN INTELLIGENCE.

ANATOMY.

1. *Anomalous Muscle.*—Dr. Wedemeyer, in examining the body of a mason, found in the axilla of each side, a muscle stretched across from the tendon of the *latissimus dorsi* to the edge of the *pectoralis major*, and in such a way that during life its contractions must have effectually compressed the axillary artery, and of course occasioned a cessation of the radial pulse.—*Untersuchungen über den kreislauf des Bluts, &c.*

2. *On the Supposed Muscularity of the Larger Arteries.*—Dr. Wedemeyer states, in proof of the larger arteries not possessing muscular fibres, that the true muscular fibre is reddish, soft, extensile during life, and very brittle after death; whereas, on the contrary, the fibrous coat of the arteries is yellowish, firm, hard, and very elastic even after death; that the vasa vasorum do not distribute themselves as in muscular fibre; that it does not contain any fibrin; that it is not excited to contract by galvanism or any other irritant; and that in its extreme liability to the deposition of osseous matter between itself and the inner serous coat, it shows its resemblance to white fibrous tissue in other parts of the body, as well as its distinction from true muscular tissue, between which and serous membranes bony matter is rarely secreted.—*Ibid.*

3. *Anomalous Vertebral Artery.*—M. A. Meckel, of Berne, on opening a dead body, observed a curious case of this kind. There were three vessels on one side: the first, of middling size, arose from the posterior part of the subclavian, where it usually takes its origin; the second, larger in size, arose more deeply from the anterior portion of the same vessel; and the third, which was considerably smaller, was a branch of the inferior thyroid. These three vessels united above the transvere apophyses of the fifth cervical vertebræ, and then formed one vessel, which pursued its usual course to the head.—*Archives Générales, May,* 1829, *from Meckel's Archives,* 1828, *No. II.*

4. *On the Anatomical Structure of the Epiglottis in New-born Children.*—M. Maingault has announced to the Royal Academy of Medicine, that he has observed in new-born children that the epiglottis is not of a size proportional to that of adults. This organ, in the early periods of uterine life, has, he says, the form and dimensions of a very small leaf of myrtle, and imperfectly covers the opening of the glottis—it therefore does not offer the least obstacle to the passage of a sound or tube into the larynx.—*Archives Générales, April,* 1829.

5. *On the Capacity of the Lungs in the Healthy and Diseased State.*—"The statements of physiologists differ materially as to the mean capacity of the lungs. Passing over the earlier experimentalists, we find that, according to the expe-

riments of Jurine, at each natural expiration forty cubic inches are discharged, and by a violent expiration two hundred and twenty inches:—That according to Goodwin, after a complete expiration one hundred and nine cubic inches on an average remain in the lungs, while a natural inspiration introduces only fourteen inches more:—That Menzies procured for each natural inspiration forty cubic inches, for each forced inspiration two hundred inches:—That Abernethy estimates each natural inspiration no higher than twelve inches:—That Kite estimates a natural inspiration at seventeen inches, a forcible inspiration after a forcible expiration at two hundred, and the air remaining in the lungs after a forcible expiration at eighty-seven inches:—That Jurine admits twenty inches, and Delametherie only from four to six as the amount of a natural inspiration:—That according to Sir H. Davy, forty-one inches are contained in the chest after a forcible expiration, one hundred and eighteen after a natural expiration, thirteen more after a natural inspiration, and two hundred and fifty-four after a violent inspiration:—That according to Bostock two hundred and eighty inches are contained after a natural expiration, forty added by a natural inspiration, and if we add ninety more for a forcible inspiration, the lungs will contain four hundred and ten cubic inches:—That Cavallo adopts thirty cubic inches as the amount of air inspired during natural respiration, when this is performed eleven or twelve times in a minute:—And that Abilgaard estimates a natural inspiration so low as three inches. Of these extraordinary discrepancies some must have been produced by errors of observation or faulty instruments of measurement. But it is probable that many of the differences have also depended on differences in the subjects of experiment. Independently of the obvious differences of stature and size of chest, a considerable difference in all probability exists according to the relative rate of the breathing in different individuals, which even in healthy subjects varies from eleven or twelve to twenty-four or even twenty-six in a minute.

"This subject has been lately taken up by Dr. Herbst of Göttingen, who gives a detail of the researches of all his predecessors, and of a numerous set of experiments which he has himself performed, apparently with great care. The instrument he prefers on account of its simplicity and the ease with which it may be managed, is a variety of that employed by Dr. Kentish, being simply a graduated glass bell-jar capable of holding three hundred and sixty-seven cubic inches, (French measure,) standing in a vessel of water, and having at its summit a wide tube and stop-cock, to which was attached a glass tube of the shape of a horizontal S (∽.) When an unpractised person attempted to breathe in an easy manner out of this jar, the gravity of the water which rose into the jar to supply the place of the air withdrawn rendered his inspirations shorter than natural. This was soon made manifest by his requiring to take a long breath after several such inspirations. By practice, however, the various individuals whom Dr. Herbst subjected to experiment easily acquired the power of breathing from the jar exactly as in the open air, so that after many inspirations no uneasiness was felt. Besides the accuracy of the results was always verified by subsequently causing them to make an equal number of expirations into the jar previously filled with water.

"By observing all the requisite precautions, very uniform results were procured under similar circumstances. The quantity of air inhaled during easy breathing was found to be, in unusually short people, from sixteen to eighteen cubic inches, and in those of ordinary stature from twenty to twenty-five inches. Menzies's estimate of forty inches was found to be such as no man could maintain for a short while without effort and uneasiness.

"The extreme capacity of inspiration and expiration differed very much in different individuals. A healthy man, twenty-two years old, five feet ten inches tall, and of moderate strength, after a full expiration, inspired one hundred and eighty-four inches, after a full inspiration expired one hundred and eighty. A delicate young man, nineteen years old, could not inhale more than ninety inches after the fullest expiration. A stout lad of sixteen, and five feet two inches tall, expired, after a full inspiration, one hundred and sixty inches. A little man, twenty-two years old, and of the same stature, expired one hundred and forty-four inches. A little Jew of the same age, only one hundred and twenty. Fat men had commonly less capacity of lungs than others; two stout, healthy, fat men, one twenty-seven and the other thirty years old, could not exceed one hundred and forty. The greatest capacities which Dr. Herbst had occasion to notice, were two hundred and thirty-two and two hundred and forty-four cubic inches; the former was the expiration of a powerful young man, six feet tall, the latter of a very powerful broad-chested man of middle stature. The effect of tight clothes in diminishing the capacity of inspiration is very striking:—A middle-sized man, twenty years old, after a natural expiration, inspired eighty inches when dressed, one hundred and six when his tight dress was loosened; after a full expiration he inspired one hundred and twenty-six inches dressed, one hundred and eighty-six undressed. Another young man, twenty-one years old, five feet eight inches tall, and of stout make, after a natural expiration inhaled while dressed fifty, when undressed ninety-six inches, and after a full expiration one hundred and thirty in the former case, one hundred and ninety in the latter. In women the capacity of the lungs is much inferior to that of men. A girl eighteen years old, and of middle strength, expired one hundred and six inches after a full inspiration; another, nineteen years old, one hundred and twenty inches, and stout women about thirty expired from one hundred and thirty to one hundred and forty-four. It is probable that after a full, forcible expiration, very little air remains in the lungs. From several experiments made on the bodies of healthy men who had died in consequence of severe injuries, Dr. Herbst found that the lungs, when distended as far as possible without tearing them, never held more than one hundred and eighty-six cubic inches.

"A remarkable fact is, that in proportion to their weight the lower animals have much more capacious lungs than man. The capacity of the lungs in grown up cats is from twenty to twenty-four cubic inches; that of a terrier twelve pounds in weight was thirty-eight inches; that of a mastiff thirty-five pounds in weight, ninety inches. Their relative capacity in different men appears, *cæteris paribus*, to bear a constant ratio to the bodily strength; and this enormous proportional increase in the lower animals is evidently closely connected with the same circumstance.

"In diseases of the chest, the capacity of the lungs is very much diminished. A pretty tall young man, affected for some time with palpitation, difficult breathing, cough, and soreness in the breast, could inspire after an ordinary expiration only thirty, after a full expiration only ninety inches; a man forty-four years old, and of middle stature, who had been long liable to *angina pectoris*, could inhale after a forcible expiration ninety-six inches; a man, thirty-six years of age, who had all the symptoms of confirmed phthisis, could inhale only forty-two inches; a young woman, short in stature, and recovering partially from phthisical symptoms, could inhale forty-six inches after a full expiration, twenty-six after an ordinary expiration."—*Ed. Med. and Surg. Journ. July*, 1829, *from Archiv. für Anatomie und Physiologie, No. I.* 1828.

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6. *Case of Double Uterus and Vagina in the Human Subject.*—On the 14th November, 1827, a woman was brought into the Hôtel Dieu, about sixty-five years of age, named Raley. She had been found on the floor of her room in a state of insensibility, and bathed in blood, which she had vomited. A few hours after her admission to the hospital she expired.

On opening the body, the stomach and the whole intestinal canal were found filled with black coagulated blood, but without any apparent breach of surface. After having carefully examined all the viscera and the vessels, which were quite empty, pale, and colourless, M. Jolly, on looking at the uterus, was surprised at the very small size of that organ. On putting the finger into the vagina, he found a membranous division, which separated that canal into two equal parts. After examining the attachments of the uterus, which were in all respects natural, he removed the rectum and bladder, together with the genital organs, which he inspected with MM. Dance and Dalmas. The external organs presented no extraordinary appearance; the entrance to the vagina was narrow and smooth, without any traces of ruptured membrane, and divided by a partition into a left and right portion of equal size; the length of the canal was four inches. The portion, half a line in breadth, was formed by the apposition of the mucous membranes; interiorly there was nothing remarkable but the smallness of its transverse diameter. The uterus presented no other remarkable feature exteriorly but its small size; it was not more than eighteen lines across; its upper external edge showed a slight depression, which divided the organ into two cavities; from the middle of this depression a longitudinal groove ran along the whole anterior surface of the uterus and vagina. A lateral section from the neck of the uterus, prolonged along its body, exhibited the one cavity without any communication with the opposite side, both inferiorly and superiorly. The cavity of the neck was very narrow, scarcely admitting an ordinary probe about three or four lines in length, and equally separated by a partition; it terminated by a circular orifice, without any trace of irregularity. This orifice was situated in the centre of the neck, which, embraced by the vagina of that side, formed a projection at the upper part of that canal. The partition which ran along the body and neck of the uterus and vagina had the same organization and thickness as the parietes of the uterus.

At each superior angle of the body of that viscus, at the point where the fallopian tubes ought to be inserted, and instead of them there was found an appendix, a real uterine horn, eighteen or twenty lines in length, cylindrical in shape, as large as the little finger where it was inserted into the uterus, swelling out in the middle, and suddenly becoming fine where it terminated in the fallopian tube.

This horn, placed horizontally at the upper part of the broad ligament, presented an oval-shaped cavity, three lines in diameter, smooth and even like that of the uterus, communicating freely with its cavity, and also communicating freely at its smaller end with that of the follopian tube; its parietes, two lines in thickness, had the same structure as the uterus. Neither the fallopian tube nor the ovaries offered any thing remarkable.—*Lond. Med. Gaz. June* 13, 1829, *from the Journal Hebdomadaire.*

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7. *Description of the Auricular Ganglion.* By Dr. Arnold, of Heidelberg.—The communication existing between the fifth pair, sympathetic nerve, and the organs of the senses, has recently attracted the attention of anatomists. The discovery of the auricular ganglion by Dr. Arnold is extremely interesting in reference to this communication. Dr. Arnold describes the auricular ganglion in man as situated on the internal surface of the third branch of the fifth pair, immediately below the foramen ovale, at the origin of the masseteric, buccinator, and deep temporal nerves, and above the superficial temporal nerve. Its internal surface is covered by the cartilaginous portion of the Eustachian tube, and by the upper part of the circumflexis palati muscle; the middle meningeal artery is immediately behind it; it is of an oval form, and slightly compressed; its antero-posterior diameter varies from two lines to two and a half; its perpendicular from one and a half to two; and its transverse diameter from a quarter to half a line. It is of a grayish-red colour, and very delicate, soft consistence; in the calf, on the contrary, it is gray, and rather dense, the reverse of the spheno-palatine ganglion; a difference which, in a physiological point of view, seems to be of peculiar interest, as these ganglia, apparently, perform analogous functions.

The auricular ganglion is enveloped by a very thin and delicate membrane, which is closely attached to the nervous substance, and which, exteriorly, is surrounded by a reddish cellular tissue, similar to the cellular membrane of the intervertebral ganglion. The pulpy mass of the ganglion itself being very vascular, is transversed by numerous white filaments, of which the greater part coalesce, though not so intimately as in the ganglia of the sympathetic nerve. These filaments are branches of the inferior maxillary nerve, and of a nerve which originates from the ganglion petrosum. A great number of short filaments, originating from the third branch of the fifth pair, connect the ganglion with the latter, and thus correspond with the roots of the ophthalmic ganglion. The vidian nerve, which at first sight appears to originate from the ganglion, runs through it, after having received a slight increase of size. Another very remarkable communication exists between the ganglion and the glosso-pharyngeal nerve, by means of a branch of the ramus jacobii, and another between it and the portio mollis, by means of a branch of the portio dura. The auricular ganglion gives origin to several nervous branches of a very delicate pulpy structure, and reddish colour. The most important of these arises at its upper and posterior part, and, in its course along the inner side of the middle meningeal artery, enters into that portion of the Eustachian tube which contains the tensor tympani muscle, in the substance of which it terminates. Two or three branches originate from the lower posterior portion of the ganglion, and unite with the two roots of the superficial temporal nerve, very likely with that portion which sends branches to the membrana tympani.

There are, consequently, the author observes, four ganglia which belong exclusively to the organs of the senses; the ophthalmic, auricular, spheno-palatine, (nasal,) and maxillary, (lingual,) ganglion, all of which are connected with the sympathetic nerve, the fifth pair, a sensitive nerve, and a nerve of motion; communicating branches of the spheno-palatine ganglion with a motory nerve, and that of the auricular ganglion with the sympathetic, have not as yet been discovered in man; in the calf the author has frequently found them.

As to the auricular ganglion in animals, Dr. Arnold has been able to find it in quadrupeds only.

Dr. A. assigns "to the auricular ganglion the same function relative to the organ of hearing, as the ophthalmic performs with regard to the eye, viz. that of regulating the involuntary motions of the membrana tympani. In the latter, two different kinds of motions must be distinguished; the one, which is entirely mechanical, depends on the vibrations of the air; the other is produced by its muscular apparatus, and consists in a greater or less tension, according to the degree of force with which the vibrations of the air act on the portio mollis,* the excitement of which is, by its communicating branch, conveyed to the portio dura, and thence through the above-described branch to the auricular ganglion and the tensor tympani.

Considering the striking correspondence which, in an anatomical point of view, exists between the nerves of the organs of seeing and hearing, and those of taste and smell, it might be asked, whether the latter possess also any apparatus for controlling the excessive action of external agencies? To this the author answers in the affirmative, and ascribes the above function to the diaphragm, for the organ of smelling, and to the excretory duct of the submaxillary gland, for the organ of taste. Whenever the pituitary membrane of the nose is acted upon very strongly, sneezing is excited by the influence which the spheno-palatine ganglion exercises over the diaphragm, by means of the deep vidian nerve; in an analogous manner the secretion and excretion of the saliva in the submaxillary gland, is augmented by means of the maxillary ganglion, whenever the lingual branch of the fifth pair is over-excited.

8. *On the Structure of the Minute Vessels.*—The observations of Dr. WEDEMEYER, confirm those of other physiologists, as to the fact, that the middle or fibrous coat of the arteries become less and less strong and distinct as the ves-

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* Fel. Savart has first clearly shown the existence of this kind of motion in the membrana tympani, and demonstrated the accoustical reasons of it.

sels diminish in size; "yet that it may be detected by its whiteness in a transverse section of a vessel whose internal diameter does not exceed a sixth of a line. It disappears in vessels which are too small and too remote to receive the impulse of the heart by pulsations—a new proof of the little connexion subsisting between the arterial pulse and the action of the middle coat of the arteries.—The inner coat also diminishes in strength and thickness along with the fibrous coat. At length both gradually terminate altogether in membraneless canals formed in the substance of the tissues. 'The blood in the finest capillaries,' says Dr. Wedemeyer, 'no longer flows within actual vessels, whose parietes are formed by a membranous substance, distinguished from the adjoining cellular tissue by its texture and compactness, but in simple furrows or canals, whose walls are formed by the surrounding cellular tissue.' This opinion, which he shares with several other late microscopical observers, is founded—on the impossibility of detecting with the microscope any membrane interposed between the parenchyma of the tissues and the blood moving in these extreme capillaries—on the facility with which single globules of blood are seen, while passing through them, to quit the stream and penetrate among the ultimate globules that constitute the surrounding texture—on the rapidity with which the blood is observed to work out for itself a new passage or canal in the tissues—and on the impossibility of the processes of nutrition and absorption being carried on through the coats of vessels.—The smaller arteries receive an increased proportion of nervous twigs as their size diminishes. This is particularly observed in the arteries of the penis and face. The fact now mentioned will alone justify the presumption, that the smaller arteries possess more contractility than their trunks and greater branches."—*Edinburgh Medical and Surgical Journal, July,* 1829.

9. *On the Termination of the Minute Arteries.*—Dr. Wedemeyer has investigated this subject with great care. "The first mode, concerning which all are agreed, is by their passing immediately into the veins. This intercommunication sometimes takes place with vessels large enough to admit three or more globules of blood abreast; and then the communicating vessels have regular parietes. But by far the greater number of the direct communications between the arteries and veins are effected by means of the extreme capillaries, which have been already described as penetrating the textures in the form of furrows, without any membrane being interposed between the blood and the parenchyma of the tissue. Nowhere, either in the greater or smaller communications between the arteries and veins, can there be seen any openings or pores in the sides or ends of the arteries, by means of which the blood could be extravasated preparatory to its being imbibed by the veins. Neither is there to be seen anywhere a sudden passage of the arterial into the venous streams—an abrupt boundary between the two divisions of the vascular system. The arterial streamlet usually winds through long routes and many turns before it assumes the direction and nature of a venous streamlet. It is seldom that extreme capillaries pass immediately from the larger arterial twigs, or to the larger venous branches. The second mode in which the arteries have been supposed to terminate, is by communication with lymphatic vessels. The arguments which have been adduced in support of this opinion, are that the lymphatic vessels bear a close resemblance to veins in their valves and tunics; that various practised anatomists have succeeded in injecting the lymphatics from the arteries; and that the lymphatics which issue from certain inflamed parts, such as the peritonæum or lungs, or from parts otherwise unnaturally gorged with blood, are often filled with a bloody lymph. Our author does not admit the force of these reasons. The analogy of structure between the lymphatics and veins is but a presumptive argument. The experiment of injecting the lymphatics from arteries has failed in many skilful hands, and has probably succeeded only by rupture of their mutual coats. The presence of red lymph in lymphatics issuing from parts distended with blood, may be easily accounted for, without having recourse to

a direct communication with arterial capillaries, because in such circumstances the fluid which is in excess will pass through the organic pores of all membranes by capillary attraction. He concludes, therefore, that we are not yet acquainted with any termination of the arterial capillaries in lymphatic vessels. Every canal that is seen by the microscope to be in communication with the arterial capillaries transmits the red globules of the blood.—The third mode in which the arteries have been conceived to terminate, is in secreting organs and their excretory vessels. Our author has added nothing to our stock of knowledge on this point. He admits that the passage of the matter of injections from the arteries into the excretory ducts, as well as the frequent discharge of blood by these ducts in certain diseased states of the body, will furnish strong presumption in favour of the alleged communication; at the same time he maintains that the phenomena of sanguinolent secretion may be accounted for from the effects of capillary attraction, or endosmose, without a direct communication between the extreme arteries and extreme secreting vessels.—The fourth mode of termination of the arteries is in vessels or exhaling pores, which transmit only the colourless part of the blood. The existence of this mode of termination, it is well known, has been the subject of much controversy among physiologists. Without the existence of serous vessels, that is of vessels too fine to allow the red globules of the blood to pass through them, it appears impossible to account for the rapid increase of the number of red vessels in the conjunctiva of the eye, when it is irritated, or for the immense multiplicity of red vessels which are exhibited after death, by a successful injection, in a vast number of the organs of the body, which during life exhibit an inconceivably smaller proportion. Dr. Wedemeyer is therefore disposed to attach little importance to the objection which Mascagni and others have brought against their existence, namely, that it is impossible to distinguish any such serous vessels by microscopic observation. Some microscopic observers have indeed alleged that they have seen colourless vessels in great numbers. But Haller, Spallanzani, Mascagni, and more lately Oesterreicher, found that these apparently colourless vessels are capillaries which only admit a single row of globules, and appear, by reason of the small quantity of colouring matter, not red, but yellow. Dr. Wedemeyer confirms the observations of these physiologists; but at the same time adds, that he thinks he has occasionally succeeded in detecting real serous capillaries.

"'The undeniable fact,' says he, 'that the streamlets of blood which consist of a single string of globules, are not red or even materially coloured before the microscope, because the globules singly appear yellow, and acquire a red colour only when collected into masses, will certainly explain many of those experiments, in which it was erroneously thought that serous vessels were seen. But it does not bear us out in the conclusion, that the same explanation is to be given of all the apparently colourless streamlets; more especially as we have hitherto been able to examine the capillary circulation with the microscope only in a very few parts of the body. And, in truth, I have myself often observed in the mesentery of the frog, pretty wide capillary vessels, which were to appearance empty, but which were really filled with serum; since, whenever the heart was cut out, and the blood allowed to drain away, these vessels in great measure collapsed, disappeared, and left as evidence of their existence nothing more than streaks of thickened cellular tissue. That they did in these circumstances discharge serum from their cavities, was owing to the elasticity of their parietes, which pressed their fluid contents towards the quarter where least resistance was encountered. One may accomplish the same thing, and empty them of their serum, by stroking them repeatedly with a hair pencil. These serous canals were actually sometimes too narrow to admit or transmit globules. But others were evidently large enough to admit single globules; and one is therefore naturally led to enquire why these vessels, though destitute of Bichat's *specific irritability*, admit only serum. I have no doubt that the following is the cause of this appearance: at their origin in a capillary containing blood, or in some part of their own course, for example, at a point where an abrupt turn is made, they are too often, as I have witnessed, plugged up or narrowed by stagnating globules, or coagulated blood; so that when so circumstanced they transmit only the more fluid serum, especially when the force of the heart is weakened, and its impulse does not in consequence act everywhere with sufficient power. Hence when the lost power of the heart is compensated by gently stroking the part with a hair-pencil, and the stagnant globules are impelled onwards, the circulation is restored, more globules follow, and the vessel continues for some time at least to convey red blood.'

"With regard to exhalant pores for the discharge of the serous part of the blood, Dr. Wedemeyer conceives their existence cannot well be denied. But he objects to the supposition that these pores are visible, *organic*, or, as he explains the term, endowed with a species of contractility, by means of which they retain certain substances, and discharge others. He maintains, that if any such pores existed, they would be perceptible with the aid of the microscope; and he considers that all the phenomena of exhalation may be produced through invisible pores, or the interstices between the ultimate particles which form the organic tissues, and may be explained by the phenomena of capillary attraction as modified by the action of the nervous system on the textures. In these views he approaches closely to the theory which M. Dutrochet has founded on his discoveries on endosmose and exosmose."—*Ibid.*

PHYSIOLOGY.

10. *Mechanism of Vomiting.*—M. Hediard, relates in the *Nouvelle Bibliothèque Médicale* for May last, a case of complete disorganization of all the membranes of the stomach, *the muscular fibres had entirely disappeared.* Yet in this instance there was vomiting, which occurred until death. This case is interesting as contradicting the conclusion of M. Isidore Bourdon, who from an analogous case, in which there was no vomiting, concluded principally from that fact, that the stomach was always active in the action of vomiting.

11. *Anatomical and Physiological Researches on Emphysema of the Lungs.*—Pathologists in examining bodies after death have been accustomed to suppose that the lungs are in a healthy state, when they crepitate on being handled, and the air-cells are regular and not of unusual size. M. Piedagnel, in a paper contained in Magendie's Journal, undertakes to prove on the contrary, that the lungs are never healthy when they crepitate; that they never crepitate except when affected with general or partial emphysema; and consequently that emphysema of the lungs is an exceedingly common disorder, being in fact produced at the close of very many diseases by the dying efforts of the patient to maintain respiration. If, says he, the chest of a dog that has recently died without making violent respiratory efforts be opened, the lungs contract very much, and when taken out and handled or cut, they feel soft, flaccid, and totally destitute of crepitation. If again the same experiment be made on the chest of an infant that has only lived a few hours, and the lungs are gently and not too much inflated, they contract in like manner to a great extent, and do not crepitate when squeezed between the fingers. Or if the experiment be tried with the lungs of an adult who has died without a concluding stage of agony, and not of a disease of the organs of respiration, it will likewise be found that the contracted lung is soft, more or less flaccid, destitute of crepitation when gently pressed or when cut into. Such then, he concludes, must be the natural condition of the lungs. But if the lungs of an animal, a child, or an adult, such as we have described, be inflated artificially with considerable force, they do not afterwards sink so completely, they are much more elastic, and they crepitate when handled or cut. Since crepitation does not exist in their natu-

ral state, and may thus be produced at will, it must always be a morbid phenomenon when it takes place spontaneously. And on considering the circumstances under which it is produced, we must come, continues M. Piedagnel to the conclusion, that it arises from the rupture of the air-cells and the passage of air into the cellular tissue between them. In the dead lung crepitation is caused by forcible distention from the trachea, and also very effectually by blowing air into a hole in the pleura; the obvious effect of which must be to distend the cellular tissue. Accordingly in the frog, in which the air-cells are large and the cellular tissue very scanty, the lungs cannot be made to crepitate by artificial distention. Towards the close of life it is caused by every form of disease which terminates in laborious breathing. Hence it is met with in all cases of violent and prolonged death, in every acute disease which terminates in long and painful agony, and in all affections of the lungs or brain, which cause obstruction of the breathing. In such circumstances it will be remarked, that respiration consists in a sudden deep inspiration followed by closure of the glottis, and a gradual expiration, during which, in consequence of the difficulty the air experiences in passing through the glottis, it is subjected to pressure on the lungs. On the contrary, the lungs are seldom found to crepitate in chronic diseases, which have had a long course, and brought the patient by insensible steps to the tomb. In particular they seldom crepitate after death from cancerous affections of the abdomen.

Since emphysema then, is a derangement of structure so common and so easily produced in the last moments of existence, may it not also arise, adds the author, in other circumstances where its immediate cause is less evident? And may we not thus explain many of the alleged cases of sudden death, which happen not unfrequently in hospitals, without any morbid appearance being detected in the dead body to account for it? The two following examples are quoted in confirmation of this conjecture. A man, thirty-six years of age, and of sound constitution, was admitted into the hospital of St. Antoine, on account of pains in the abdomen and slight pulmonary catarrh consequent on suppression of a hæmorrhoidal discharge. After being a few days in the hospital he was getting the better of his trifling ailments, when he began to complain of obstructed breathing, and a sense of weight in the epigastrium, which prevented him from taking a full breath. As his pulse was frequent, venesection was ordered; but before it could be performed, he died. On examining the body, the inspector could find no diseased appearance worthy of note, except that the lungs were voluminous, filled the whole chest, and crepitated strongly. Another man, sixty-one years of age, and in general healthy, but liable for three years before to occasional pulmonary catarrh, was admitted into the same hospital on account of violent cough with copious mucous expectoration, and mucous rale; but his breathing was natural. Three days after his admission he also complained of impeded respiration; and next morning he was found dead in bed. When the body was examined it was considered that every organ, and among the rest the lungs, were sound. The lungs, however, says M. Piedagnel, were crepitating, and full of air, filled completely both sides of the chest, and on the left side were indented by the ribs, whence he had no difficulty in concluding that the patient had died from the sudden infiltration of air into the pulmonary cellular tissue.

Another practical inference which may be drawn from his researches is, that in supporting the breathing by artificial inflation of the lungs, care must be taken not to inflate the chest with too great force. This caution was suggested not long ago by M. Leroy d'Etiolle, in consequence of experiments on living animals of a nature parallel with those performed by M. Piedagnel after death. But it may nevertheless be useful to see what the latter enquirer has to say on the subject. He informs us that in 1826 he delivered a lady of a still-born child, which he endeavoured to bring to life by artificial inflation of the lungs, but without avail. On examining the body he could not discover any obvious cause of death, but the lungs were strongly emphysematous. He was therefore led to conceive that the emphysema had been caused by the inflation, and that thus a fresh cause of death had been unwarily added to that which already existed. On subsequently making some experiments on living animals he arrived at the same results as M. Leroy d'Etiolle. Sudden inflation caused immediate embarrassment of the respiration, proving speedily fatal; and he found in the dead body the lungs pale and emphysematous.

He further remarks, that pulmonary emphysema has appeared to him to be the cause of death in those extraordinary cases of sudden death, which have taken place during operations at the root of the neck, from the passage of air into the veins. In two melancholy instances which happened at Paris of sudden death from that cause, during the removal of a firm cellulo-fibrous tumour from the neighbourhood of the clavicle, one of which has been recorded in Magendie's Journal, Vol. 1st, and the other in the 3d vol. of the *Archives Générales de Médecine*, M. Piedagnel says the most striking appearance was emphysema of the lungs marked by crepitation and the want of subsidence of the lungs. Death in such cases has been usually ascribed to the air entering the heart in such quantity as to deprive that organ of a due quantity of its proper stimulus; by others it has been ascribed to the air entering the brain in the arterial blood; but the author appears to us to give a more satisfactory explanation of the accident.

He is disposed to dissent from Laennec as to the possibility of mere dilatation of the air-cells of the lungs being accompanied with the symptoms of emphysema, and maintains that such a state of the lungs has been found in the bodies of persons who did not labour under any impediment of the breathing, and that in those who have had such symptoms there is always found, besides enlargement of air-cells, effusion of air into the cellular tissue around them, the effect, he supposes, of rupture of the air-cells at the time the breathing first becomes materially disturbed.—*Edinburgh Medical and Surgical Journal, July,* 1829.

12. *On the Supposed Irritability and Vital Contractility of the Arteries.* By George Wedemeyer, M. D.—No fibre unequivocally muscular is insensible to the stimulus of galvanism. The heart, it has been asserted, however, is not affected by it; but the experiments of Dr. Wedemeyer entirely disprove this exception; the contractions produced in it by galvanism are so distinct, that he says it is inconceivable how the experiment on frequent repetition should have appeared to any one to yield a negative result. On the contrary, his experiments on the greater arteries, carried on for a series of years, and repeatedly performed on dogs, cats, rabbits, Guinea pigs, hedge-hogs, birds, frogs, mewts, serpents, and fishes, never furnished a result contrary to the opinion, that these vessels do not possess irritability or vital contractility. The experiments were made with a battery of fifty pairs of plates on the carotid artery, and thoracic and abdominal aorta, sometimes during life, sometimes immediately after death, caused in all manner of ways, and the artery was sometimes left in connexion with the heart, sometimes was removed from the body; but the result was always the same; he never could mark any contraction. As little could he succeed in producing contraction by mechanical stimulants. The exceptions to this general fact, which have occurred to other experimentalists, he has found to be more apparent than real.

"The final result of his researches on the present topic is, that in the natural state of the pulsation of the arteries no such contraction is ever witnessed, as that observed by Hastings on the application of stimuli, or by Hunter and others on the evacuation of the blood—that Bichat and Parry are correct in stating that a slight augmentation of the diameter of the arteries is caused at each pulsation, but that it is so small as to be with difficulty appreciated—that all the phenomena of the arterial pulse may be imitated exactly, when life has been for many hours extinct, by impelling water into the vessels by successive jets from a syringe—that the pulse is owing entirely to the impulse communicated by the heart, in consequence of which the artery is partly dilated, and partly made to shift its place—that all the phenomena of the arterial circulation may be referred to the elastic contractility of the coats—and that the greater arteries therefore contribute to move the blood forward only by restoring through their elastic reaction the force expended in dilating them."—*Edinburgh Medical and Surgical Journal, July*, 1829.

13. *Influence of the age of the Parents on the Sex of their Offspring.*—Professor Hofsacker, of Inspruck, relates in the *Inspruck Med. Chir. Zeitung*, the following interesting researches on this subject:—

1. In marriages where the mother is older than the father, the average number of male to that of female births is 90.6 : 100.

2. Both parents being of the same age, the proportion of boys to girls is 92 : 100.

3. The father being from three to six years older than the mother, the number of male to that of female children is 103.4 : 100.

4. Where the father is from six to nine years older than the mother, the proportion is 124.7 boys to 100 girls.

5. The age of the father being from nine to twelve more than that of the mother, the proportion is 143.7 : 100.

6. Where the age of the father is eighteen years and more above that of the mother, the proportion of male to female births is 200 : 100.

7. Young men, (from twenty-four to thirty-six,) produce with young women, (from fourteen to twenty-six,) 116.6 boys to 100 girls.

8. If men between the age of twenty-four and thirty-six, are married to females between thirty-six and forty-six, the proportion of male to female children is 95.4 : 100.

9. Middle-aged men, (from thirty-six to forty-eight years,) being married to young females, the proportion of their male and female children is 176.9 : 100.

10. Middle-aged men, and middle-aged women, produce 114.3 male to 100 female children.

11. Middle-aged men, being married to women of a more advanced age, the proportion of male to female children, is 109.2 : 100.

12. Old men and middle-aged women produce 190 male to 100 female children.

13. If husband and wife are both equally advanced in age, the proportion of their male and female children is 164.3 : 100.—*Nouv. Biblioth. Méd. July*, 1829.

14. *Gestation prolonged beyond the Ninth Month.*—Dr. Albert of Wiesentheid has published in the *Zeitschrift fur die staatsarzheykunde*, III. tes 1828, an account of two cases of this kind. In one gestation was prolonged forty-three, and in the other, thirty-three days beyond the ordinary period.—*Archives Générales, June*, 1829.

15. *Experiments on Endosmose and Exosmose.* By G. Wedemeyer, M. D.—We have on several occasions noticed the interesting experiments by Dr. Dutrochet, on the property of animal tissues, and, as we believe, they are destined to lead to new views respecting some physiological phenomena, we are happy to be enabled to present to our readers the following experiments, confirming and illustrating the general doctrines established by M. Dutrochet.

"If a wide glass tube filled with water, and closed at its lower end with some animal membrane, be plunged into a vessel containing a mineral acid, the water will penetrate the membrane by virtue of a superior capillary attraction for it, and at its outer surface unites continually with the acid by chemical affinity; so that gradually the whole water passes out of the tube, and mixes with the acid, while the tube is thus emptied. If, on the contrary, the acid be poured into the tube, and the water into the outer vessel, the water penetrates through the membrane, and unites with the acid in the tube, so that the latter gradually rises, and at length flows out at the top of the tube. If instead of an animal membrane a vegetable one be substituted, no such phenomena occur.

"Mr. Brande made also the following experiment, of the accuracy of which I have since satisfied myself. If the end of a glass tube five lines in diameter be hermetically closed by the swimming-bladder of a fish, placed in a vessel of water, and filled to the level of an inch above the surrounding water with blood deprived of its fibrin, the bladder, owing to its stronger capillary attraction for the water, is penetrated by that fluid. The water, in consequence of chemical affinity, unites with the blood as fast as it passes through the bladder; so that at length the blood, now converted into a bloody water, will rise several inches in two days, or a little more, and flow out at its upper opening. A few hours after this process has commenced, and when the blood has undergone solution in the water which has passed through, and appears a dark but translucent liquid, a slight capillary attraction begins to be manifested between the bladder and this solution of the blood, a stream is established in an opposite direction to the former, though much more feeble, so that at last the water in the outer vessel is reddened slightly by the transmitted colouring matter of the blood.

"If, on the other hand, the tube filled with blood is placed in a vessel containing a solution of salt, no passage of the solution will take place towards the blood through the swimming bladder, there will be no solution of the colouring particles of the blood, no change of its colour, no rise in the tube, and the solution will undergo only a very faint alteration of colour, after a long interval.

"These experiments show that an animal membrane exerts its capillary attraction variously on various liquids, that it attracts water more strongly than blood, and that blood strongly attracts water, since so distinct a rise and flowing over of the fluid in the tube can be ascribed only to such an attraction, and by no means to the capillary attraction of a tube so large as five lines in diameter. Is there not a striking resemblance between the phenomena now described, and the phenomena of absorption in the living animal body? May it not be by powers similar to this that the motion of the blood and other fluids is effected in animals which have no heart?"—*Edinburgh Medical and Surgical Journal, July,* 1829, *from Untersuchungen über der Kreislauf des Bluts, &c.*

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16. *Vaccine Disease Transmitted from the Mother to the Fœtus.*—An instance of this kind is given in the *Journal des Progrès,* Vol. XV. from a Swedish journal. The Academy of Sciences of Stockholm, it appears, took some pains to ascertain the facts of the case, and if the report made to them can be depended upon, it affords one of the strongest proofs hitherto adduced that virus may be transmitted from the mother to her fœtus. The following are the most important facts of the case. A peasant, aged twenty-one, pregnant for the first time, was vaccinated, April 3d, 1803. On the 13th of the same month, the disease was fully developed, and in the evening the mother was delivered of a healthy daughter. The infant was fed upon fresh cow's milk, and grew finely. In the mean time it was observed that the child had upon its arms, regular vaccine vesicles, in the same spots and of the same number as the mother. These vesicles arrived at maturity, left cicatrices, and were in all respects similar to those of the mother. The child did well for six weeks, when it died of an accidental affection of the stomach and breast, after three days sickness.

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17. *Communication between the Uterine and Placental Vessels.*—Dr. **Bianchi** published last year in the *Antologia Giorn. di sc.* &c. some experiments which he had made, to prove that there exists a direct and immediate circulation between the mother and fœtus. He injected the vascular system of a woman who died in childbed, from inertia of the uterus, the placenta being still attached to the uterus; he found the injection in the vessels of the chorion and of the amnios, and on examining the tortuous arteries of the uterus, he observed that they pe-

netrated the tissue of the placenta, that they spread themselves over these vessels, and that they had deposited the injection in the cells described by Hunter and Meckel. In a young woman who died eight days after delivery, and in whom a small portion of the placenta still adhered to the uterus, the injection introduced into the uterine arteries, not only passed from the uterus into the adherent portion of the placenta, but also spread itself in the cavities of the uterus and vagina, through the lacerated extremities of the vessels which Dr. B. names *utero-placental arteries.* On dissection, the vessels of the uterus and placenta were found filled with the injection. In a woman who died in childbed from metrorrhagia, the injection introduced by the aorta, exhibited the tortuous arteries continuous with those of the uterus, and which, by their free and open extremities, had permitted the injection to transude on the internal surface of the uterus. It was, Dr. B. thinks, by these utero-placental vessels, that the fluid in the first experiments passed from the uterus into the placenta. These vessels, according to Dr. B., M. Lauth, Junr. has improperly named lymphatics.

These experiments have given rise to much controversy in Italy. Among others, Dr. Rigalli has opposed to them some anatomico-physiological observations, founded upon a great number of experiments made by him in 1819 and subsequently, upon a woman and the females of different species of animals. In the greater number of cases, the injection of the vessels of the uterus did not pass into those of the placenta; if in some cases the injection did pass into the placental vessels, the experimenter is convinced that this happened either from the rupture of the vessels, or by absorption, which function it is known goes on some time after death. In fact, if the passage into the placenta, of fluids injected by the uterus, occurs when the experiment is made immediately or very shortly after death, it never takes place when the experiment is tried a sufficient time after death for all vitality to be extinct, and absorption to have ceased. Dr. Rigalli is therefore convinced, that the apparent results obtained by Dr. Biancini, were the effects either of absorption, a pathological condition, or rupture of the vessels, and denies that they at all prove, the connexion between the uterine and placental vessels, or the direct communication between the mother and fœtus.

On the other side, M. Daliso Casabianca has sent to the Medico-Physical Society of Florence a memoir on this subject, in which he says, that, assisted by M. Vinciguerra, and in presence of the most celebrated professors of anatomy and physiology of the University of Pisa, he has made eleven experiments upon animals, in which mercury injected by the arteries of the mother, passed into the veins of the fœtus, and vice versa, without its being possible in this double passage to discover any extravasation of the injection in the intermediate tissue. He concludes, 1st, that the fluids injected by the arteries of the mother passed into the umbilical vein of the fœtus; 2d, that the same fluids introduced by the uterine veins flowed into the umbilical arteries; 3d, that these fluids have a free circulation from the mother to the fœtus, and from the fœtus to the mother, by two series of vessels, described by M. Biancini under the name of *utero-placental arteries* and *placento-uterine veins.*

As connected with this enquiry, we refer the reader to the interesting experiments of Professor Mussey, in the original department of this number. The question of the communication between the mother and fœtus would form an excellent subject for an experimental investigation, and we hope that some enterprising candidate for medical honours will select it for his inaugural dissertation.—*Journal des Progrès, Vol. VIII. and XIV.*

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18. *Case in which the Summit of the Bladder was Deficient.*—M. Nespoli informed the Medico-physical Society of Florence, that in examining the body of a woman, he found the upper portion of the bladder wanting, there being only an inferior portion disposed in the form of a basin, in which the ureters and urethra terminated. The deficient part of the bladder was replaced by the ad-

hesion of the sigmoid flexure of the colon with the cœcum, and this woman retained her urine perfectly well, and passed it at pleasure.—*Annali Universali di Medicina, Milano, Nov. & Dec.* 1828.

PATHOLOGY.

19. *Affection of the Mind from Injury of the Brain.* By JOHN EPPS, M. D.—It has been pretty generally urged against the truth of phrenology, that injuries of the brain, have taken place, without any affection of the mind. As the brain is acknowledged by all, to be the seat of the mind, there is much reason to doubt this assertion, and to believe that it has been too hastily made, and received without sufficient investigation. Dr. Epps presents us in the *London Medical and Surgical Journal* for June last, an account of a case, which supports this view of the subject.

"An individual, when a boy, was playing with a horse, and he received a blow on his head, which fractured his skull, and occasioned some of the brain to be lost and removed. He survived the blow, and has now attained to manhood; is engaged in business, and has, from his engagements, considerable exercise of mind. The part of the brain lost is situated at the organs of causality, wit, ideality, and constructiveness. He has a developed head, and is a man of common sense. From the statement hitherto made it might be imagined that his mental powers are not at all affected; but now to the matter of fact. This gentleman is subject to what are commonly called fits. He falls down suddenly, and is generally relieved by bleeding, either spontaneous, or excited by art. What is peculiar is, that these fits come on when his mind is much harassed by occupation, and by making arrangements and perfecting plans. When his mind is thus employed a peculiar sensation is experienced, which warns him to direct his thoughts to other objects; the attempt is made, and, if successfully, the fit does not occur. The phrenological physiologist explains this by the circumstances that causality, constructiveness, and ideality, are in an injured state, (the new bone, it should be observed, is but imperfectly formed, and sinks in;) that, when these faculties are in great activity, a flow of blood takes place to the parts; the organs of these faculties, which not being in their natural state, and partly from the unnatural sunken position of the bone, are thereby morbidly affected, and the fit takes place. But if the sufferer can turn his mind to other objects, that is, excite other faculties, the blood immediately takes its direction to the organs of these faculties, and is thus diverted from its former course. This gentleman's memory, too, fails him very much; and he is at present quite a young man.

"Here, then, we see the mind to be affected when the brain has been injured, while all other functions of the body are in a healthy condition."

20. *Case of Extraordinary Growth.*—This case is recorded by Dr. BEDOR, in *La Clinique.* It occurred in a young man who had symptoms denoting organic disease of the heart; and, who in twenty-five days increased in statue three inches. The patient died suddenly a few days after he was seen by Dr. Bedor. He was scarcely nineteen years of age, and had attained the unusual growth of six feet three inches.

21. *Remarkable Predisposition to Hæmorrhage.*—Dr. SCHREYER of Vogtsberg, states that, in a family of five children, under his observation, the eldest bit his tongue, and bled to death; the second and fourth are perfectly healthy; but the third and fifth have a remarkable tendency to hæmorrhage. All these are of the male sex. The two above mentioned, one aged five years and the other fifteen months, have, at irregular periods, blue spots on the legs and thighs, which increase till they become as large as a pigeon's egg, when they assume

a greenish blue colour: they do not bleed unless they are puntured; but, if this be done, the hæmorrhage does not cease till the child faints, and the body is blanched. The blood which flows first is red, but after a time it becomes pale, like water in which flesh has been washed. Pressure with the point of the finger, kept up for twenty-four hours, is sufficient, according to the testimony of the parents, to stop the bleeding. No coagulum ever forms, to plug up the vessels. Neither of the parents, nor their relatives, participate in this morbid condition; and it is remarkable that it has affected their children alternately, viz. the first, third, and fifth.—*Zeitschr. für Natur. und Heilkunde.*

22. *Gonorrhœa and Chancre.*—We learn from a communication by M. Gibert in the *Nouvelle Bibliothèque Medicale*, for March last, that M. Biett had under his care a man who was afflicted with gonorrhœa, caused by cohabiting with his wife shortly after delivery, and during the continuance of the lochial discharge. The gonorrhœa being suppressed in a great part, an acute purulent ophthalmia supervened. We learn from the same source, that there was in the hospital of St. Louis a patient, with a large ulcer on the internal surface of the prepuce, and at the base of the gland, caused by having connexion with a woman a few days after her delivery.

These cases are conclusive, as showing the non-specific nature of these diseases. We have known gonorrhœa several times induced by cohabiting with a woman during or two soon after menstruating; and chancres and also gonorrhœa produced by the leucorrhœal discharge.

23. *Disease of the Frontal Sinus.*—A delicate girl, nine years old, after having an itch suppressed, was affected with severe head-ache, and a swelling was observed in the left eye-brow, which was gradually followed by impairment of the sight in that eye. From this period her system underwent so little change, that when she had attained her fourteenth year, she might readily have been mistaken for a child of twelve. At this time she was first examined by Professor Jäger of Vienna, who found that the hard tumour, if dented in by pressing upon it with the finger, when the pressure was removed, would regain its former dimensions with an elastic spring similar to a metallic plate. Except this tumour, and occasionally recurring head-aches, there were no particular appearances of disease. It was concluded that the disease was situated within the frontal sinus, but by no means certain that it did not affect the internal table of the os frontis. The thin external bony plate was cut through, and a large quantity of bloody serum was discharged, and the cavity of the sinus appeared to be divided into numerous cells by delicate membranes; as it was probable that the dura mater would be injured by removing the inner table of the frontal bone, it was not disturbed. Such high inflammation of the wound ensued, and other symptoms of high reaction, as to require a decisive antiphlogistic treatment; this, with the continued discharge of bad-smelling serum, and the increasing weakness of the patient, soon required the use of the cordial plan. The discharge ceased, and the opening healed under the use of the usual remedies, the tumour remaining as large as before. The patient remained for some months in the condition she had been in previous to the operation, suffering frequent attacks of head-ache, and finally became chlorotic. The swelling was not reduced by the passage of a seton through it, but daily poured out a large quantity of fetid fluid. She retained her entire consciousness, and her left eye, notwithstanding the great compression of the optic nerve, recovered its sight; about eight days before her death a severe inflammation of its cornea occurred. She died hectic in her fifteenth year; how soon after the operation is not stated.

The following were the dimensions of the swelling; length five inches eight lines, breadth four inches nine lines, height four inches three lines. The tumour had encroached so far as to narrow the left nostril and compress the antrum maxillare of that side; posteriorly it had forced the brain from its natural position, causing the anterior to occupy the place of the middle lobe, and the displacement of the entire left half of the brain as far back as the optic thalamus, was very remarkable. In general the inner table of the skull was not perforated, neither was there any remarkable affection of the dura mater, with the exception of a high degree of vascularity. When the tumour was laid open, the cavity was found to contain numerous cysts, [hydatids?] some containing reddish, others bluish or colourless gluey serum. The extended bony plate was of a consistence similar to the skull of a newly-born hydrocephalic infant. The cysts were more like the tunica hyaloidea than any other substance; some held nearly a drachm, others an ounce or two of fluid. Some of the smallest were insulated, the larger communicated with each other by small lateral openings.—*E. Dissert. Inaug. J. Gul.* Brunn, *Anhalt. in Hecker's Annalen der gesammten Heilkunde, March*, 1829. J. D. G.

24. *On Hypertrophy of the Brain.*—M. Mc. Laennec has published in the *Revue Medicale*, for December, 1828, several cases, which he considers examples of a peculiar disease of the brain, not unfrequently associated with other diseases of that organ, but may likewise exist, as a single independent affection. The following are the conclusions that he has drawn from his enquiries:—1st. That the brain, like every other organ, is susceptible of an obvious augmentation in volume and density, or in other words of a true *hypertrophy.* 2d. That the anatomical characters of this hypertrophy consist in very great firmness of the cerebral substance, and a marked flattening of the convolutions of the brain, which flattening coincides with complete or almost complete emptiness of the ventricles, and sometimes with notable contraction of these cavities. 3d. That this change of structure is constantly conjoined with epileptic, or at least epileptiform symptoms. 4th. That it developes itself with much greater rapidity than any other hypertrophy; a circumstance which makes it approximate to the inflammatory congestions, and appears to depend on the organization of the texture in which it is seated. 5th. And that the causes of the lead-cholic appear to have a very great influence in developing hypertrophy of the brain.

25. *Fœtus affected with Fungous Hæmatodes.*—Dr. Tonnele delivered a woman of a child, which had upon its right parietal bone an enormous fungous hæmatodes. The base of this tumour originated in the osseous tissue, and perforated it like a sieve; the dura mater was healthy.—*Journal des Progrès, Vol. XIV.*

26. *Periodical Hemicrania, terminating by the evacuation of a Calculus through the Nose.* By Dr. Axmann.—A female, aged fifteen, complained of pain in the region of the left and frontal sinus, which extended to the same side of the head. It recurred daily, at ten, A. M. and continued to five, P. M. Sometimes the pain was excessive, affecting the left side of the face, and inducing tumefaction around the eye. The left nostril was dry. During the paroxysms, the girl suffered from nausea and vomiting. The disease continued two or three weeks, and recurred all the year, except January and February. Menstruation appeared in the seventeenth year. She married at twenty-one, and during her pregnancy the disease disappeared. During fifteen years she bore eight children, and generally enjoyed good health, except at the end of the third pregnancy, when head-ache was violent. Three years from her last delivery, the menses diminished, and in March, 1823, the head-ache returned with violence. In the summer, she visited the baths at Kissengen and derived much benefit. In March, 1825, she was consoled by the passage of a calculus from the left nostril, of the size of a bean, and this was effected by a pinch of snuff. During the succeeding months and the following year she evacuated several calculi, which were followed by a discharge of fetid pus, and this effect was produced by sternutatories. Since 1826 the woman is perfectly well. The calculi were analyzed by M. Geiger, and found to consist of albumen, mucilage, and fibrin;

fat and osmazome, in the proportion of 0.35; phosphate of lime 0.8; carb. of lime 0.325; carb. magnesia 0.125; and traces of soda, muriate of soda, and oxide of iron.—*Archives Générales, May,* 1829, *from the Heidelberger Klinische Annalen.*

27. *Case of disease of the Eye supposed to be produced by Inflammation of the Jugular Vein.* By James M. Arnott, Esq.—"A young man had a ligature placed on the left carotid artery, for an aneurismal disease of one of its temporal branches. Considerable difficulty was experienced in passing the needle round the vessel. Venous hæmorrhage took place during the operation, recurred at night, and occasionally afterwards for nine or ten days. On the fifth day after the operation, the patient had a severe rigor, succeeded by heat of skin, and general febrile symptoms. These increased, the pulse rose to 120, and the constitutional disturbance assumed a very violent character. About the tenth day, the vision of the left eye became impaired, and was quickly lost, the pupil was contracted, the iris immoveable, and the cornea had a somewhat hazy appearance: effusion took place under the conjunctiva, and the eyelids were greatly swollen, giving the appearance of the globe being much protruded; at the same time, there was a degree of deafness, considerable stupor, with occasional slight delirium. In the course of a few days, the coats of the eye sloughed at the upper part, and its contents were evacuated. Whilst these changes were occurring in the eye, collections of matter formed without pain in different parts of the body, on both shoulders above the insertion of the deltoid muscles, over the sacrum, &c. The constitutional disturbance abated, the collapsed eye healed over, but he never recovered his health. Five months subsequently he died, labouring under lumbar abscess, and worn out by hectic. On examination of the body, (at which I was present,) a portion of the jugular vein, to the extent of two inches, was found wanting; the upper and under extremities being shrunk, ligamentous, and gradually lost in the cellular substance. On opening the head, pus was found effused in great quantity between the tunica arachnoidea and pia mater, along the base of the brain, and the whole length of the spinal cord. The intermuscular cellular substance of the loins was loaded with pus. The viscera of the abdomen and chest were not examined.

"When we consider the circumstances of this case, the venous hæmorrhage, the constitutional disturbance, the formation of abscesses, and the appearances presented on dissection, and compare them with the consequences which have been observed to follow inflammation and suppuration of a vein, can it be doubted that the affection of the eye in this instance, arose from the inflammation of the jugular vein, and from the entrance of an inflammatory secretion, probably pus, into the blood?"—*Medico-Chirurgical Transactions, Vol. XV. Part I.*

28. *Case of Intermittent Tetanus.* By Dr. Schuette.—A woman, sixty-seven years of age, was affected with whitlow on the thumb of the right hand: the first phalanx being detached, the wound healed; a fortnight afterwards a pricking pain was felt in the lower part of the cicatrix, which extended little by little to the whole arm, following the course of the median nerve: this pain lasted from five minutes to a quarter of an hour, and returned once every day. After the lapse of a few months, trismus and opisthotonos were added to the other symptoms. The thumb was amputated, and the disease did not reappear. On examining the amputated part, it was observed that the cicatrix was cartilaginous, and that a nervous twig that was imbedded in it was of a deep red colour for the extent of a line and a half.—*Heidelberger Klinische Annalen, Vol. III. No.* 3.

29. *Curious Case of Ischuria.* By Dr. Hastings. In our first volume we published an account by Dr. Arnold, of one of the most extraordinary cases of Ischuria on record, also a very remarkable one by Dr. Senter; the following is related by Dr. Hastings in the fourth number of the *Midland Medical and Sur-*

gical Reporter, and is not only interesting in itself, but also from its analogy to the cases to which we have alluded. A female aged twenty-three, was admitted into the Worcester Infirmary April 9th, 1814. "She represented herself as having been particularly healthy. Within the last week she had been exposed to cold, whilst the catamenia were flowing abundantly. For the first day or two, she only appeared to suffer from feverish symptoms. Soon afterwards, however, the secretion of urine became very deficient, and she had difficulty in passing it.

"On the evening of her admission she became much worse, and complained especially of pain and tenderness over the whole of the lower part of the abdomen, and in the loins. There was vomiting and a disposition to convulsion. The lower part of the abdomen was much distended. The catheter was introduced, and ten ounces of urine were drawn off; after which the pain was relieved. She was ordered to take a scruple of cathartic extract immediately; and one drachm of sulphate of magnesia, dissolved in camphor mixture, three times a day.

"The next morning the bowels had not been moved. She was afflicted with severe head-ache, as well as the abdominal pains. She had passed no water, and was delirious during the night.

"She was cupped on the back, and had a blister applied, and took cathartic mixture every four hours till the bowels were moved freely; after which she went into a warm bath.

"The symptoms remained for several days very much in the same state. Delirium usually came on during the night. No urine was passed by the natural effort, but about three ounces were drawn off by the catheter, in the course of twenty-four hours. She very frequently vomited, and suffered much from pain, tenderness, and tension of the lower part of the abdomen. On the evening of the 17th, insensibility came on, for which a blister was applied to the back of the neck. The pulse was 60. An active aperient was given. On the 19th, no improvement had taken place, for the vomiting was incessant, and the pain in the abdomen and back was more severe. Pulse 80. She was bled three days in succession, with some alleviation of the pain, but the abdomen became generally enlarged and very tender. There also ceased to be any urine drawn from the bladder by the catheter. This continued to be the case for five days. The bowels were open. She took saline diuretics without avail.

"On the 25th, there was much vomiting, pain, and distention of the abdomen, but she passed a little urine. Pulse 80. She was bled to eight ounces.

"On the 27th, a bloody discharge appeared at the umbilicus, after which, the abdominal pain and tension were relieved. She also passed some urine by the urethra. The vomiting was, however, worse than it had previously been.

"The bloody discharge from the umbilicus, and the other symptoms, continued very much the same till the second of May, when there was a discharge of a urinous appearance and smell, from the umbilicus. She had passed no urine by the urethra for three days. The head was very painful; the pupils dilated; pulse 56; bowels costive. Some leeches were applied to the temples, and a blister to the back of the neck. A brisk purge was administered. The catheter was introduced, but no urine found in the bladder.

"This discharge of urine from the umbilicus, continued till the 5th, when the catamenia appeared, but quickly vanished. The abdomen became less tense and tender. There was not so much vomiting. The bowels were open.

"From the 7th, to the 9th, there was no discharge of urine from the umbilicus, nor was there any passed by the urethra. As a consequence, the abdomen became much distended, and severe pain followed, with vomiting. The tension was most remarkable at the umbilicus, forming a circumscribed tumour.

"On the 10th, in the morning, six ounces of urine were drawn off by the catheter; and in an hour after, two quarts of urine, of the same appearance, gushed from the umbilicus. This was followed by much relief of the abdominal pains. The discharge of urine from the umbilicus, continued for three days, and was accompanied with great improvement of the general symptoms.

"The amendment, however, did not last, for the discharge from the umbilicus again ceased, and for three days, the vomiting, the head-ache, the abdominal tensions and pain, returned with their former severity.

"On the 17th, the catheter was introduced into the bladder, and no urine was found. In an hour after this, two quarts of urine passed from the umbilicus, and soon afterwards great relief was experienced.

"From this time to the 25th, there was little variation, but the young woman suffered during that interval very much from vomiting, and daily passed urine from the umbilicus. The catheter was passed every day, and no urine was found, but the bladder contracted strongly on the instrument; sometimes, immediately after the catheter was removed, a discharge of urine would take place by the umbilicus, and once, as much as three quarts were thus passed.

"On the 26th, for the first time after many days, four ounces of urine were drawn from the bladder. Each succeeding day, this quantity was now increased, and the quantity passed by the umbilicus, was diminished. There was also a general improvement of the symptoms, with the exception of vomiting. This continued obstinate. All this time, the medicine that she took was confined chiefly to the class of purgatives. Blisters were also applied to the neck and epigastrium.

"The bladder was regularly emptied every day by the catheter, for more than a month after this date, during which time, the abdominal pain and vomiting subsided, and there was no discharge from the umbilicus. Early in July, she began to pass some urine, and the power over the bladder was gradually restored. She was discharged in the middle of July, in tolerable health, but still often complained of pain in the pelvic region. She menstruated.

"*Observations.*—This curious case of Ischuria, is well worthy of consideration. The remarkable sympathy observable between the brain, the stomach, and kidnies, is common to all cases of this description, and is so obvious, as not to require any further comment.

"The very remarkable feature in the case, is the occurrence of the urinary discharge from the umbilicus, many days after the ischuria had been noticed. Such instances, although rare, are not without parallel in the annals of medicine. Schenck relates two instances of this kind. In the one, a male, the urine was discharged in consequence of an obstruction at the neck of the bladder, 'tanquam mictione ex umbilico,' for many months, without any detriment to health. In the other, a female, and more resembling the one now related; 'cùm suppressa per multas dies fuisset urina, tandem per umbilicum urinam profudit.'—Schenck Obs. Lib. iij. de Urina, p. 489.

"The interesting question is to determine in what manner the urine is conveyed to the umbilicus in these instances. The urachus offers itself as a mean by which the discharge may be determined to that part, and it seems probable, that in the case of mechanical obstruction related by Schenck, at the neck of the bladder, that a channel of communication was formed by the urachus, between the bladder and the umbilicus. But in the case we now remark upon, there had been no urine secreted into the bladder, long before its appearance at the umbilicus, nor was there for some time after. And the first discharge from the umbilicus, was not of an urinary, but bloody nature. We must, consequently, I think, regard the urinary discharge, in this instance, as vicarious, and as proceeding, probably, from the peritoneal surface. This view seems confirmed, by the great abdominal distention which took place for some time previous to the discharge from the umbilicus, when it was invariably found, from introducing the catheter, that the bladder was empty, and that it contraced on the instrument.

"Some cases of this description, have been placed upon record by eminent men worthy of great credit. There is none, perhaps, more deserving of attention, than that by Platerus, which is thus related by the renowned Sennertus. 'Puellæ cuidam annos natæ tredecim, cùm aliquando copiosè minxisset, urinam subito suppressam esse, atque tunc aquam serosam ex aure dextra adeo affatim cœpisset effluere, ut una vice mensuræ duæ sæpe emanarint, idque dies aliquot.' He then adds, that on diuretics being administered, the urine was passed freely from the bladder, and the discharge from the ear ceased; but as soon as the diuretics were discontinued, the discharge again took place from the ear, but was altogether removed by general terebinthinate remedies, and local repellents to the ear. The health did not suffer—Sennerti Opera, Lib. iij. p. viij. s. ij cap. 9.

"In our case, it was evident that much inflammatory action was going on in the pelvic viscera, previous to, and during the discharge of urine from the umbilicus; and there was a considerable sympathy of the general health, with the local inflammatory action.

"I may further add, as a notice to this case, that the young woman was again admitted into the Infirmary, in May, 1827, for paralysis of the lower extremities, from which she recovered by appropriate remedies. The urine, for a time, was drawn off by the catheter, but there was no return of the former disease."

30. *Case of Emission of Urine by the Umbilicus.* By M. Falaschi.—This phenomenon occurred some months before death in a very old man, in whom the urethra, at its origin in the bladder, was completely closed. It was supposed that the urachus had remained pervious; but on examination after death it was found that, to arrive at the umbilicus, the urine had passed through an ulcer in the summit of the bladder, and had spread itself in the peritoneal cavity, in a large sac formed by the adhesion of the intestines together, and to the abdominal parietes. The urine passed out of this sac by an ulcer which it had caused at the umbilicus.—*Annali Universali di Médicina, Milana, Nov. and Dec.* 1828.

31. *Induration of the Valve of Vicussens.*—Professor Heusinger, in examining the brain of a woman who had died of phthisis pulmonalis, and who had never had pain in the head or eye, found the valve of Vieussens in a state of cartilaginous induration, and covered with a layer of yellow, and very firm adipose matter, about a line in thickness. This matter was deposited in the pia mater, but adhered intimately to the valve, and was confined to the latter, following it in its passage beneath the central lobule, and extending a short distance into the superior vermicular lobe. The tubercula quadrigemini, and the other neighbouring parts, were in a perfectly normal condition.—*Bulletin des Sc. Méd. March,* 1829, *from Zeitschrift f. d. organ Physik. Vol. II. No.* 4, 1828.

MATERIA MEDICA.

32. *Animal Charcoal.*—Dr. Wagner, of Schlieben, states that in consequence of having seen Dr. Weise's paper on the use of *(carbo-animalis,)* animal charcoal, he was induced to administer it in a case of cancer of the nose, which had been for five years in a state of ulceration, and upon which all the resources of art had been exerted in vain. He began by giving two grains of carbo-animalis, morning and evening, and subsequently three grains. The sore cleaned off, and new fleshy granulations appeared over the whole surface; the circumference became lessened, and the suppuration assumed a healthier character. But no further change ensued, until he applied strong sulphuric acid, which destroyed all the surface, caused high inflammation, and was followed by a healing which was perfect, with the exception of a spot not larger than a very small flaxseed that never closed up. The second case in which he made use of carbo-animalis, was that of a lady, twenty-one years old, who had suffered inflammation of the left breast, followed by a hardening and some suppuration. The mamillary glands remained of a stony hardness for ten or twelve weeks. She took three grains of the medicine, morning and evening, for a few weeks, dur-

ing which time the indurations were entirely removed, and her appetite, digestion, and good spirits returned in proportion. Dr. Wagner does not pretend, however, that this substance was positively the cause of all these changes, but makes due allowance for the youth and vigour of the patient, &c. At the same time the remedy is worthy of the attention of practitioners, who too frequently find all ordinary remedies unavailing in cancerous affections.—*Hecker's Annalen der Ges. Heilk. March*, 1829. J. D. G.

33. *New and exceedingly active Alcaloid substance discovered in Peruvian bark.* By Dr. Fr. Sertürner, of Hameln.—In the January number, (1829,) of the *Journal der Practischen Heilkunde*, Dr. Sertürner announces the discovery and employment in practice of A NEW ALCALOID, obtained from red and yellow Peruvian bark, as much superior in efficacy to sulphate of quinine and cinchonine, as these medicines are to the bark in powder. The chemical process by which he obtained this alcaloid, we regret to say, is not given in the paper, but is promised for a forthcoming number of the Chemical Annals, published by the author. The general result of his researches is given as follows:—

"The alkaline precipitates obtained from acid extracts of bark, contain, along with cinchonine and quinine, other alkaline substances, which may be regarded as modifications of them, and remind us of the still imperfectly understood composition of opium, in which another resembling substance is found in company with morphium, called narcotin."

The new alcaloid in the alkaline precipitates is powerfully united with a resinous, sub-acid substance, which, if not positively injurious, is still not beneficial, and from which it is separated with extreme difficulty. Dr. S. obtained it however perfectly pure, by using the vegeto-animal charcoal, obtained in the preparation of safranic acid, and which the researches of Professor Liebig have found to contain the krokon acid. The precipitates are mixed with animal coal, and then the crude alkaline substance, (the so called resin of the mother-ley which remains after sulphate of quinine is separated by crystallization,) is dissolved in concentrated sulphuric acid, diluted with three or four parts water, and the solution is thus decolourized; nevertheless, it is necessary to treat the syrup-like solution previously with alcohol, to separate the earthy salts.

The most remarkable circumstance relative to this new and peculiarly concealed alcaloid, is unquestionably that it should be found in the red and yellow bark, though somewhat modified, along with cinchonin and quinine. Then that this alcaloid should excel all the members of its family, quinine, &c. in power and capacity for combining with acids, and may be regarded as the original stock or parent of these substances.

This alcaloid, to which Dr. Sertürner gives the name quinoidine, in its insolubility in water, colour, and taste, resembles the other salts of bark. It is clearly distinguished however by its strength, as well as by its capacity for acids, in which it far excels the other salts of bark, and perhaps all other alcaloids. Its alkaline reaction on the known vegetable colours, as also its intimate connexion with a brownish, suspicious sort of acid extractive matter, is also striking. The salts of this wonderful alkaline substance, free from all admixture, in a warm place, appeared like a balsam, flowing in drops, slippery, and slightly fusible, though it very often contained acids in dry situations.

Dr. Sertürner prescribed the chenoidin in doses of two grains three times a day, with the injunction to swallow a little vinegar after each dose, to saturate the gastric juice, which is sometimes alkaline in fevers, and which, by acting upon the salt, sets the chenoidin free, and thus renders it inert, the alkaline base being insoluble in water.

The success with which this medicine was used in practice, is truly surprising; and if it but maintain the reputation acquired on its first appearance, we have ample cause for congratulating the profession upon its discovery.

34. *On the Bark of the Root of the Calotropis Mudarii.* By ANDREW DUNCAN, M. D.—This is the Mūdar of Drs. Ainslie and Wallich, and the Madár of Mr. Playfair. In the native practice of India, the powder of the bark of the root, as well as the concrete juice of the plant, enters into various compound formulæ for the cure of elephantiasis and many other disorders. From experiments made by Dr. Duncan in the clinical wards of the Royal Infirmary, Edinburgh, it appears that its action is similar to that of ipecacuanha. In doses of from fifteen to twenty grains, it rarely failed to produce full and easy vomiting. In smaller doses, of from three, five, or seven grains, repeated three times a day, it produced more or less nausea, with occasional diaphoresis or sweating, and given in this way, it was most successful in cutaneous affections. Its sudorific action was much assisted by the tepid or warm bath; and in painful affections of a rheumatic nature, by combining it with opium, in the proportion of one grain of opium to five or seven of mudar. In still smaller doses mudar acts as an expectorant, or as a tonic and stomachic. Dr. D. has not observed it to act upon the bowels as a cathartic. The mudar plants and the allied species yield much milky juice, which, when carefully dried, is considered by the Hindoos as powerfully alterative and purgative, and has been long used as an efficacious remedy in the Lepra arabum, the dose being about the quarter of a pagoda weight in the day, and continued for some weeks.—*Ed. Med. and Surg. Journ. July*, 1829.

35. *Vesicating Plaster.*—Dr. TH. W. C. MARTIUS recommends the following formula for this purpose. He says it spreads easily, adheres well, and does not spoil. ℞. Cantharid. contus. ʒiv.; inf. c. aq. ebull. ℥xx.; col. et evapor. leni igne ad syrupi consistentiam. Adde cer. flav. ʒiv.; resin pini, ℥j.; ol. oliv., ol. terebinth. āā. ʒj.; alcohol vini, ʒij.; M. exact.

The strength of this plaster may be increased by using a larger proportion of cantharides.—*Bull. des Sc. Med. May*, 1829.

PRACTICE OF MEDICINE.

36. *On the Utility of Camphor in Puerperal Mania.*—Dr. BERNDT relates in the *Journal der Practischen Heilkunde* for November, 1828, several cases of puerperal mania in which camphor was found useful. In these cases there was great sexual propensities, or even positive nymphomania. Dr. B. had previously ascertained, he says, the inefficacy of the ordinary modes of cure, and the danger of narcotic medicines. He therefore resolved to try the effects of camphor, which appears to have been followed by the most favourable results. The camphor was used in injections in the quantity of about ten grains, or administered internally in doses of from one to four grains every hour, or less frequently, in proportion to the urgency of the symptoms.

37. *On the Means of Recovering Persons Drowned.*—In our first volume, p. 211. we noticed the experiments of M. Leroy d'Etioles, in relation to artificial respiration. He has since presented a memoir on the subject to the Royal Academy of Medicine, which was referred to a committee, consisting of MM. Magendie and Dumeril, who reported on the 20th of April last. M. Leroy announced, "that air if forced into the trachea of certain animals, caused sudden death. The examiners confirmed this assertion. These facts are highly interesting, because many authors recommend inflation of the chest with the mouth, with the syringe, or bellows. The examiners agree with the author, that air forcibly blown into the lungs, will lacerate the delicate tissue of these organs, pass into the cavity of the pleura, press on the lungs and impede considerably the function of respiration. This is easily proved, by injecting air through an intercostal space, by a canula. The tissue of the lungs in dogs is dense, and hence these animals are less injured by insufflation than others. MM. Dumeril and Magendie

have shown by experiments on dead bodies, that the insufflation of air through a tube introduced by incision into the trachea, will rupture the tissue of the adult lungs, and the air will pass into the cavity of the pleura; with the infant, the lung is more dense, and opposes such resistance as not to be ruptured by insufflation. The reporters assert, that not more that two-thirds of the drowned persons, who were assisted during the last five years in Paris, were restored to life; and they think insufflation of air in the usual manner, is one of the causes of want of more success. They agree with the author, that the chest and lungs are passive during artificial respiration, but active in natural respiration; and hence the author proposes to imitate nature, by placing fine needles on the attachments of the diaphragm, and in passing a current of galvanism through that muscle to excite its contraction. By the action of the diaphragm, air will be introduced. The reporters are convinced of this fact, from experiments made on drowned animals, all of which were revived, if submersed under the period of five minutes duration. But they are not quite certain that the recovery was to be attributed to the galvanism; it may be possible, but it would be imprudent to affirm it. As a galvanic apparatus may not be always at hand, the author proposes a very simple proceeding, which consists in putting in action the elasticity of the ribs, their cartilages, and the parietes of the abdomen; in fact, in making moderate pressure on the abdomen and thorax. When the thoracic and abdominal cavities are compressed, the vitiated air of the lungs is expelled, the pressure ceasing, the ribs, diaphragm, and abdominal parietes return by their elasticity to their former situation, the chest is dilated, and air is inspired. By this manœuvre, the blood, stagnant in the vessels of the abdomen and chest, is put in motion towards the heart and lungs; the contractility of the diaphragm put in play, is excited, the convulsive contractions of this muscle become more regular and life reappears. By this method, and by heat and frictions to the abdomen, Maggioni of Padua, restored an infant that had been half an hour under water.

"This plan appears to the reporters likely to be employed with success, from the facility with which air is introduced into the lungs, and expelled from these organs. It is a powerful reason, which ought to render us very reserved in using insufflation of air in the lungs. The reporters, however, are of opinion, that unless persons be seized with syncope, who remain longer than five minutes under submersion, or be affected with syncope at the moment of submersion, recovery cannot be expected. They do not speak decisively on this point. They think insufflation of air, as practised by common people, highly dangerous. The reporters conclude thus: 1st, that it is desirable, that the ordinary treatment, and especially pulmonary insufflation, should undergo some modifications. 2d, that this insufflation, can in certain cases, be usefully replaced by the means proposed by M. Leroy, which require no medical knowledge, no particular apparatus, no loss of time, and are accompanied with no danger; and, finally, that this memoir is worthy of insertion among those of learned correspondents. The conclusions of the report have been adopted by the Academy. Dr. Bernard has offered some reflections on this memoir, and the report, in the public paper denominated *La Globe*, of the 25th of April. He asserts that the practice has been known a long time, and adopted more frequently than the reporters imagined. It was described by all writers of the last century, especially by De Haen, in 1771, and it was the common practice of the watermen of Paris, in 1772, by which they restored many drowned persons to life, sometimes after a quarter of an hour's submersion. M. Bertrand details the experience of a friend, of the highest veracity, who resuscitated dogs by this method, and also the human species."—*Lond. Med. and Surg. Journal, July,* 1829, *from La Lancette Française.*

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38. *On the Application of Lunar Caustic in the Early Stage of Angina.* By M. Toirac.—Cauterization by nitrate of silver, at the commencement of angina

tonsillaris, almost always, it is said, arrests the disease. M. T. relates the following cases from his extensive experience upon this subject:—

Case I.—For several years M. Toirac himself had been liable to pain in the throat, of uncertain duration, which generally arose from cold, or some deviation from his ordinary habits. Rest, mild diet, and sometimes, but very rarely, leeches, were sufficient to remedy this complaint. But the disposition which always remained to a recurrence of the disease, subjected M. T. to many and tiresome precautions to prevent such repeated attacks. He determined to break through the morbid disposition of the parts; and for this purpose he had recourse to the caustic, which surpassed his expectations. When he first applied it, the right tonsil was tumefied, the palate was red and granulated. The velum pendulum palati presented the same appearances. Deglutition was difficult, and the uvula somewhat elongated, and marked with red streaks. The tongue was depressed, and each part which had the most florid appearance, and which was the most painful, was touched with the lunar caustic. In one hour every disagreeable sensation subsided.

Since this experiment, M. T. has always had recourse to the same treatment in similar cases, and it has invariably been successful. The application of the caustic to the mucous membrane lining the mouth gives no pain, although the copperish taste which follows is rather disagreeable, and sometimes produces nausea. The apprehension of increasing the inflammation by this mode of treatment, is entirely chimerical. The same observation, we are assured by M. T. will apply to cauterization by a hot iron. "I daily have recourse to it, *(le fer rouge,)* for some particular affections of the gums: its application to the affected part produces scarcely any unpleasant sensation. Sometimes, indeed, the patient is almost unconscious of it, and is only aware of the operation from the hissing which results from the contact of a heated iron to a humid part!"

Case II.—Mademoiselle A. G. had been frequently subject to sore throat. The same treatment was adopted with similar advantage. The tonsils were previously much enlarged, but afterwards they presented nearly a healthy appearance. Whenever she now experiences any precursory symptoms of her former malady, she has recourse to the argentum nitratum, and in a few minutes she is relieved from all inconvenience. It is proper to observe that this patient had frequently been submitted to the ordinary modes of treatment. Her neck was covered with numerous leech-bites. The slightest exposure to cold, particularly if her neck was uncovered, had always caused an attack of sore throat, to which she was, after the above treatment, not more disposed than the generality of people.

Case III.—A young lady had, from five years of age, been frequently subject to affections of the throat. Her tonsils had sometimes been so much enlarged as to threaten suffocation. By the application of the nitr. argent. the malady disappeared, as if by enchantment.—*La Clinique.*

39. *Treatment of Herpes Zoster by Cauterization.*—More than ten years have elapsed since the idea occurred to M. Bretonneau, of arresting the progress of certain cutaneous affections by cauterizing them. The substitution of one species of inflammation for another, had the most happy results. Béclard, MM. Duméril, Guersent, and Serres, adopted and gave currency to this process, which, however, was nothing more than a new application of a very old practice.

During the variolous epidemic of 1825, the *ectrotic* practice, as it has been called, was warmly extolled, even to enthusiasm, and it was proposed to cure by this means, measles, scarlatina, erysipelas, &c. It will be seen by this, that nothing less was intended than to suppress the whole cutaneous pathology. We have not heard that the effects have answered to these expectations, and at this day, even in the wards of La Pitié, exanthematous, vesicular, and pustular affections, continue no less than formerly, to run their rounds and even to prove fatal.

It is proper to state, that the idea of M. Bretonneau, purged by time and experience from the exaggerations with which it had been overcharged, has borne its fruit, and that medicine has been enriched by a method as simple as it is advantageous, of interrupting the development of certain inflammations. Every one knows that *zona* is often accompanied with pains of extreme acuteness, which continue sometimes long after the falling off of the scales. These pains in many instances constitute a real inconvenience, as for example, when they occur in the breasts of women.

The authors of an estimable work upon cutaneous diseases, MM. Schedel and Cazenave, affirm that these occurrences are rare, and cite in support of their opinion that of M. Biett, who, in more than five hundred cases of zona, has never met with one attended with dangerous symptoms. Whatever be the confidence inspired by such authorities, it cannot be denied that this disease sometimes developes itself with great violence, since the vesicular patches have been seen to become suddenly gangrenous. These authors maintain that zona gets well spontaneously, and terminate the history of the disease in the following words:—"Is there any necessity here of mentioning the application of the ectrotic practice? It appears to us at least useless in a disease which in the great majority of cases is very light and very simple."

M. de Beauvoys, a physician at Seiches, (Maine-et-Loire,) practices in a country where zona, under the name of *sangle*, creates a good deal of alarm, with those whom it attacks. The popular ideas relative to the nature and danger of this affection, doubtless contribute to render the expression of these symptoms exaggerated, especially among women. It becomes therefore of much importance to combat the cause of these inquietudes, and to put an end to them at once. These considerations have led to the employment of cauterization.—*Nouvelle Bibliothèque Médicale, Jan.* 1829.

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40. *Tetanus cured by Bleeding.* By M. Lisfranc.—A man of about thirty years of age, after working very hard, experienced severe pains in the vertebral column: he was attacked by locked jaw, to which, in a few days, succeeded tetanus and emprosthotonos. In the course of ninteen days he was bled eight times from the arm: the four first bleedings were performed in the first two days, from three to four pallets each. In the same time, *six hundred and eighty* leeches were applied along the spine, two or three warm baths were administered, and every morning and evening a simple clyster, with an addition of twenty-five drops of laudanum, which were gradually increased to one hundred and five drops. The patient was cured. It is to be remarked, that notwithstanding the great loss of blood, the pulse continued both very full and very frequent. The man was so little weakened, that on the fourth day of his convalescence he was in a condition to walk.—*Revue Medicale.*

41. *Tannin in Menorrhagia.*—The *Revue Medicale* for September, 1828, contained some observations of Pata upon the good effects of tannin in the above disease. When these observations met the eye of M. Cavalier he was attending a young woman, thirty-three years of age, affected with hæmorrhage from the uterus, for the cure of which he had employed various means in vain. It must be observed, that this female had been subject, for many years, to a bleeding from the anus, which increased in winter and summer, but without deranging the course of the menstrual discharge. But after a violent affection of the mind, this bleeding became much worse, and a uterine hæmorrhage also took place. At length M. Cavalier prescribed the tannin, in doses of two grains every two hours. On the first day, some amendment was perceptible; on the second, the flux of blood from the anus ceased; and on the third, the menorrhagia was stopped, giving place to an abundant leucorrhœa, but this also diminished under the continued use of the same remedy, and the patient became convalescent. The same author also relates the case of a young girl of seventeen, who was affected with uterine hæmorrhage in consequence of using violent exercise dur-

ing the period of menstruation. She had employed all the common remedies, including extract of rhatany and opium. Every thing having been useless, he prescribed the tannin, and with success equally prompt as in the first instance; for at the end of four days, the discharge had entirely ceased.

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42. *Intermittent Fever cured by Levigated Mineral Charcoal.*—The *Journal des Progrès*, Vol. XIV. contains three cases of intermittent fever, cured by Dr. Pierquin, by levigated mineral charcoal, given in the dose of two drachms. In two of the cases a single dose was sufficient, in the third a second dose was required.

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43. *On the Extract of Male Fern Root for the Cure of Tænia.* Dr. J. J. Ebers has published eight cases in which the above medicine has been followed by complete success in the removal of the tænia. The dose prescribed by the doctor is from eighteen to twenty-four grains, administered at two doses under the form of pills. He has repeated this two or three times, occasionally; though, in general, one dose has been sufficient to cure the patient. He generally orders a purgative to be taken on the following day, which produces the evacuation of the worm, for the extract appears rather to have the property of killing the worm than expelling it. Dr. Ebers draws the following conclusions from his experience:—1. The extract of male fern root is one of the surest means that can be employed against the tape-worm. 2. It generally kills the worm speedily, and thus favours its expulsion from the body. 3. It acts as a specific. 4. It does not expel the tænia in a ball, or mass, as other anthelmintics. 5. This medicine acts usually in a mild manner, and without producing any severe symptom: once only it produced some severe effects in a female, who had not the tape-worm. 6. It also expels *ascarides*, but with this difference, that it does not kill them.—*Journal de Chimie Mèdicale.*

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44. *Means of suspending the Secretion of Milk.*—M. Ranque chief physician of the Hôtel Dieu of Orleans, employs with success, to diminish the sensibility of the mammary gland, upon which the secretion of milk depends, frictions morning and evening upon the breast, with the following liniment. ℞. Laurel water, ℥ij.; sulphuric ether, ʒj.; extract of belladonna, ℈ij. He prescribes at the same time rigid diet and sudorific drinks.

M. R. it is said, employs this liniment with success in engorgements of the testicles, after using antiphlogistics.—*Journal des Progrès, Vol. XIV.* 1829.

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45. *Mixture of Quinine and Digitalis Purpurea in Phthisis Pulmonalis.*—This was first recommended by Dr. Gunther, of Cologne, in 1825. Since that period Dr. S. has employed the combination alluded to in many cases of consumption, with great amendment of the symptoms of the disease. He gives from two to three grains of the sulphate of quinine, united with a third or a half a grain of the digitalis, and eight grains of fennel, to be repeated four times a day.—*Journ. der Practischen Heilkunde*, 1829.

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46. *Combination of Lactuca Verosa, and Digitalis Purpurea in Hydrothorax.* Dr. Joel, of Aurich, first employed this combination. M. Brosius has since administered it in twelve cases of inveterate hydrothorax: and, although he has obtained but two radical cures by it, it allayed the principal symptoms in eight others, two patients only were not benefited by it. He has also verified the fact, previously known, that if this remedy does not produce its beneficial effects in a few days, no hope need be entertained of its subsequent efficacy. Four grains of the extract of lettuce, and one grain of the powder of digitalis, and given every two hours.—*Ibid.*

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47. *Pyroligneous Acid as a Gargle in Angina Maligna.*—This is recommended by Dr. Barth, of Naumbourg, who relates three cases in *Rust's Magazin*, Vol.

XXVII. No. 1, 1828, in which he employed it successfully. He uses half an ounce of the Pyroligneous acid, with five ounces of water and an ounce of syrup; the throat to be gargled with it every half hour.

48. *Treatment of the Cholera of India.*—M. **Gravier**, a French physician at Pondicherry, has treated this disease with so much success, losing scarcely two patients in thirty, that the English governor at Madras requested him to communicate an account of his treatment. An extract from this Report is published in the *Bibliothek for Lager*, No. 1, 1827. M. G. considers the disease as a gastro-enteritis, and employs an antiphlogistic treatment. The progress of the disease is rapid, and requires prompt remedies. At first, cold water given in large quantities, afterwards in less, and fomentations to the lower part of the abdomen, diminish the symptoms in all cases. When the extremities become cold, and the pains and cramps diminish, twenty-five to fifty leeches should be quickly applied to the abdomen, according to the age, sex, and constitution of the patient, sinapisms should be applied to the legs, and a rigorous diet prescribed. The cure is effected very rapidly, the patient acquires soon a strong desire for food, and the next day rice water may be given for drink, which completes the cure. To the report of M. G. are annexed some official documents, tending to prove the successful results of the antiphlogistic treatment in cholera.—*Bull. des Sc. Méd. Jan.* 1829.

OPHTHALMOLOGY.

49. *Purulent Ophthalmia, following Suppressed Leucorrhœa.*—A case of this kind is related in the *Nouvelle Bibliothèque Medicale*, for March last, by Dr. **Gibert**. It occurred in a woman, aged twenty-seven, affected for a long time with leucorrhœa, which was suppressed suddenly by astringent lotions, whereupon the eyes became inflamed, and a puriform fluid was discharged from them. By active depletion afterwards, and finally astringents, the inflammation of the eyes was relieved, but it did not appear to get entirely well until a slight return of the leucorrhœa took place.

50. *On the Functions of the Great Sympathetic Nerve, and the illustration it affords of the Pathology of Amaurosis.* Professor **Langenbeck** considers the nerves of sense, as those of vision, smell, and hearing, have need of another order of nerves, which do not possess sensibility of themselves, and are merely an accessory apparatus. Such are the ciliary nerves to the optic, and such the fifth pair to the olfactory nerve: the great sympathetic presides over the functions of vegetative life, but it is directly connected with all the organs of sense, and it is necessary to attribute to it an accessory part in the sensitive functions. It forms a sort of conductor between vegetable and animal life. The author applies these views to the pathology of the eye, and especially to amaurotic amblyopia, and amaurosis. This malady is often a constitutional affection, which manifests itself sympathetically in the eye as if an organic affection. The author demonstrates anatomically, how the eye sympathises with parts more or less remote, through the sympathetic nerve; it accounts for the action of the iris, and refutes the opinion that the excitation is produced by light on the retina, and propagated by the optic nerve to the iris; and, in fine, the author thinks that light excites directly the ciliary nerves of the iris. The dilatation of the pupil by belladonna explains this action of the ciliary nerves, and if fomentations or gargle be employed, the effects depend on the great sympathetic and its irradiations in the iris. The nerves of the retina and optic nerve are of no importance in the motions of the iris, the irradiations of the great sympathetic nerve, which establish the connexion between the eye and other organs more or less remote.

Amblyopia and amaurosis are sympathetic and idiopathic. Each species offers different modifications, which depend on the structure of the retina and optic nerve. The retina receives the ramifications of the central artery, which are accompanied by nerves continuous with those which accompany the trunk of the artery. This vascular and nervous apparatus presides over the vegetative life of the retina; the capillaries of the central artery of the retina are to the eye, what the cerebral vessels are for secretion and reproduction of the substance of the brain. The vitality of the visual organ is organic and animal; derangements can be produced in one and the other mode of vitality; and in each of these derangements we can admit a fundamental principle, a reciprocal relation between the vascular and nervous systems. Both systems are confounded in one, and the excitation of the one influences the state of the other. In admitting both these principles of vitality we can divide amauroses into four classes. 1. Sympathetic amaurosis, determined by organic vitality. 2. Sympathetic amaurosis determined by the nervous system. 3. Idiopathic amaurosis determined by organic vitality. 4. Sympathetic amaurosis determined by the nervous system. M. Langenbeck regards as appertaining to the first class, amaurosis caused by derangement in the abdominal circulation, by abdominal plethora, orgasm, venous turgescence, suppression of the menstrual or hæmorrhoidal discharges; that which occurs in the last months of utero-gestation, and in hypochondriacs with derangement of the abdominal circulation. The disease induced by those causes comes on slowly, and is to be treated by low diet, small abstractions of blood, but copious depletion if there be passive congestion or dilatation of the veins; temperance to be observed, sulphur and cream of tartar if the congestion be not active, sulphur and guaiacum with Richter's pills if there be obstruction. Amaurosis with epilepsy, clonic and tonic spasm, hysteria, does arise from a simple dynamic or vital origin. The treatment is that of epilepsy and the other diseases.

Amaurosis caused by plethora, and attended with head-ache, sensation of pressure in the eye, and excessive sensibility to light, presents the iris in a state of paralysis. Amaurosis may be caused by hæmorrhages, excessive menstruation, salivation, excessive spermatic evacuation, and may likewise be induced by the suppression of coryza, in gouty and rheumatic subjects, and by the repercussion of cutaneous eruptions. The disease may commence by acute inflammation of the retina, or by a chronic phlogosis with an exudation, and with an exaltation or diminution of the vitality of the iris. The antiphlogistic plan must be pursued in such cases, and mercury employed if there be any exudation. Arthritic amaurosis commences with a violent inflammation of the fibrous parts of the globe of the eye, and is soon propagated to the vascular membranes; the disease terminates by an exudation on the iris, with inflammation of this membrane, occlusion of the pupil, hypopium, or an affection of the capillary sanguineous system of the optic nerve. Purgatives, especially the saline, mercury, and artificial ulcers on the skin, are the best remedies. If amblyopia, or amaurosis be caused by gastric irritation, the treatment must be directed against such irritation. If these diseases be caused by mechanical violence to the sub-orbitary region, there is first, irritation or inflammation in the capillary system of the sub-orbitary nerve, and those are propagated to the ophthalmic ganglion and optic nerves. If amaurosis arise from organic disease of the brain or cranium, the optic nerves, and retina are affected directly, and also indirectly by the irradiations of the great sympathetic nerve.—*Lond. Med. and Surg. Journ. July, from Neue Bibliothek für die Chirurgie, &c. Tom. IV.*

SURGERY.

51. *Case of Hydatid Tumour simulating a Crural Hernia.*—M. Pigeotte, Physician of the Hôtel Dieu of Troyes, in examining a female subject, observed two tumours, one on each side, resembling crural hernia. The one on the right

side, was reduced by taxis; being preceded by a fold of intestine, that on the left resisted all efforts at reduction, and on dissection proved to be a hydatid tumour. If this woman had been attacked with disorder of her bowels attended with symptoms analogous to those produced by strangulated hernia, she would no doubt have undergone an operation.—*Nouvelle Bibliothèque Medicale, March,* 1829.

52. *Lythotomy.*—Of eighty-three operations by the lateral method, performed by M. J. M. Viricel, at the Hôtel Dieu of Lyons, eighty were successful.—*Revue Médicale.*

53. *Case of Ununited Fracture of the Os Femoris, cured by the introduction of the Seton.*—A boy was admitted into the Bath Hospital, under the care of Mr. Henry Lyford, with a fracture of the thigh, produced eleven months before, and which had been treated in the usual way, but without any union having taken place. On his admission, an oblique fracture was evident, "rather above the centre of the femur, at which part there was a very considerable degree of motion, so much so, that the disunited portions of bone could be made to form an obtuse angle, and that without producing the slightest pain or inconvenience. The foot and leg quite œdematous, and much everted, the limb one inch and a quarter shorter than the opposite extremity, and incapable of being elongated by extension. There appeared to have been an unusual degree of constitutional languor and inactivity, manifested by a very slow and feeble pulse, extreme coldness of the hands and feet, pallid countenance, dry skin, and impaired appetite, with constipated bowels. Ordered a large blister to be applied on either side of the thigh, contiguous to the fracture; meat diet; a pint of porter daily; the bowels to be kept open by equal parts of the mercurial pill and extract of aloes, and three spoonfuls of the compound mixture of steel to be taken three times a day.

"On the twelfth day, the blisters having totally failed to produce any effect in the way of exciting ossific inflammation, Mr. L. introduced a seton between the end of the bones. At the expiration of two months from the time of his admission, he was discharged cured."—*Lond. Medical and Surgical Journal, July,* 1829.

54. *Cases of Diseased Larynx in which Tracheotomy was Successfully Performed.*—The circumstances under which tracheotomy may be resorted to with advantage, and those in which this operation is entirely unavailing, are as yet not determined; and they can only be so by collecting the experience and observations of different practitioners. To enable our readers to form some opinion on this interesting subject, we have in the previous volumes of this Journal, related several cases, and with the same view we subjoin a case from the *London Medical Gazette* for 4th July last.

Case I.—Margaret Taylor, æt. 28, was admitted into the clinical ward of the Royal Infirmary of Edinburgh, 23d May, with difficult, noisy, and painful respiration. "The pain, which was increased by pressure, she referred to the larynx and trachea. She had a short painful cough, with difficult expectoration of a viscid mucus. There was much general pain and uneasiness of thorax, with inability to perform complete inspiration. Countenance expressive of much anxiety; superficial ulceration on fauces, a deep ulcer on uvula. Was first affected with sore throat three months ago. Her present complaints have continued for about a fortnight, commencing with difficult inspiration. Two days before admission, the dyspnœa was so urgent as to threaten suffocation. When admitted, it had in some measure subsided. She denied having been at any time affected with any venereal complaint, though she had lived very irregularly and intemperately, and been much exposed in the open air during the night.

"Monday, May 25th.—To day the difficulty of inspiration having greatly increased, tracheotomy was performed by Mr. Liston.

"The patient having been seated on a low chair, an incision was made with a common scalpel through the integuments on the fore part of the neck, immediately below the thyroid gland. A second incision exposed the trachea, which was then perforated with the point of the knife from below upwards to the extent of half an inch. A common bronchotomy tube was immediately introduced into the trachea; this was followed by only two or three convulsive inspirations, after which the respiration became perfectly natural.

"May 30th.—Once in twenty-four hours the tube is removed and cleaned. Lunar caustic is applied to the ulcers on the uvula and fauces once every two days. Breathing and cough easier.

"On June 7th an irregular portion of bone was ejected by the mouth during a violent fit of coughing. On examination, it proved to be the left superior corner of the thyroid cartilage ossified. The ulcerations on the throat have nearly disappeared; she can breathe much more easily through the glottis, and uses a smaller tube. There is little doubt but the urgent symptoms in this case were caused by the death and separation of the portion of bone."

55. *Extirpation of the Ovaries.*—The *Archives Générales* for May last, contains the accounts of five cases in which this operation was performed. The first is from *Rust's Magazin*, b. 25, h. 2, and is related by Dr. Dieffenbach of Berlin; in this instance the tumour was so attached that the extirpation could not be accomplished; the abdomen was therefore closed, and the woman escaped with difficulty from the consequences of the attempted operation. The second and third cases are related by Dr. Hopfer, in *Graefe und Walther's Journal*, 12r. b. 1s. h. The patients died thirty-six hours after the operation. The fifth case is related by Dr. Martini, in *Rust's Magazin*, b. 27, h. 3. The tumour was so firmly adherent that it could not be removed, but the operator cut away the sac, and was under the necessity of securing some arterial branches: the woman died in thirty-six hours. In the fourth case the operation was successful; it is related by Dr. Hopfer, in *Graefe und Walther's Journal.* A woman, thirty-eight years of age, had borne five children in the space of seven years. After her fourth delivery she suffered from inflammation of the womb: from that period she complained of a dull pain in the left side of the hypogastrium, and about a year and a half after her last confinement she perceived a small tumefaction on the left side: a few sulphur baths caused it nearly to disappear for a time, but latterly it had extended over the abdomen. Two years subsequently to this, her menses were followed by a malignant fluor albus, which added to the debility already induced. Dr. Chrymer having decided on the nature of the affection, and the patient having consented to the operation, it was performed by making an incision from the xyphoid cartilage to the pubes, leaving the navel to the right; the opening made into the peritoneum caused a prolapsus of a great part of the intestines: they were immediately enveloped in a warm and moist cloth. The adhesions of the tumour to the peritoneum and to the edge of the pelvis were then divided, a double ligature was applied to the pedicle of the tumour attached to the broad ligament, which was divided an inch below the ligature. The intestines, which had been wrapped in the towel about five or six minutes, were then replaced within the abdomen, the serosity accumulated in the pelvis was wiped off with a sponge, and the wound closed by suture. The operation lasted a quarter of an hour, and the patient lost only a few ounces of blood: an emulsion, containing nitre, was ordered immediately, and hiccup with cold shivering showing themselves after some little time, some doses of laudanum were administered. The cure was not interrupted by any accident, and at the end of six weeks the woman returned to her native place. Since this operation she has borne a healthy child. The tumour weighed eight pounds, exceeded in size the head of a child, was irregular on

its surface, livid in some places, and within, presented cavities, some filled with a fluid of the consistence of honey, and others with a greenish and sanious liquid.

56. *Excision of Enlarged Nymphæ.*—Dr. WAGNER has performed this operation with success in a girl aged eighteen, in which the nymphæ were enlarged to an extraordinary degree.—*Bull. des Sc. Méd. May,* 1829, *from Horn's Archiv. für Med.* 1828.

57. *Abscess between the Vagina and Rectum, opening into the latter.*—A woman aged twenty-six, who had piles, was attacked after a confinement with puerperal fever, during the course of which, an abscess formed in front of the anus, and burst into the rectum, but not externally in the perineum. On her reception in *La Charite,* there were seen the traces of old piles, but no external sore or sinus. On passing the finger into the rectum, there was felt in its anterior wall, immediately opposite the posterior wall of the vagina, an orifice large enough to admit the little finger, surrounded with irregular projections, but not communicating with the cavity of the vagina. It was, therefore, an abscess which had opened into the rectum, but not a recto-vaginal fistula, and the surgeon was to take care in operating, that he did not lay open the vagina, and convert it into a case of the latter description. Instead, therefore, of cutting from the perineum, M. Roux laid the patient on her left side, introduced the finger into the rectum, so as to feel the orifice in its wall, carried the bistoury inward, on the finger, and divided the gut and cellular tissue, from the orifice outwards to the perineum. Some portions of skin were removed, and thus the sinus, or rather the deep-seated abscess was laid open from its bottom, and converted into a wound, with a little loss of substance. With proper dressings, the patient was perfectly cured, having merely had a retention of urine on the evening of the day of operation, which was obviated by the employment of the catheter.—*Journal Hebdomadaire, No.* 21.

58. *Pseudo-caries.* The shafts of bones, and especially the tibia, in consequence of chronic inflammation, are frequently enlarged, thickened, and at the same time loosened in their texture, which comes to have nearly the same appearance as that of the spongy articulating extremities. In bones so altered a state resembling caries occasionally occurs. Mr. Syme says that he has hardly ever known this pseudo-caries resist the local application of blisters, and internal use of mercury.—*Edinburgh Med. and Surg. Journ. April,* 1829.

59. *Vertical Fracture of the Patella.*—These accidents are so rare that there is scarcely any mention of them made in modern surgical works. The most ancient, as well as, perhaps, the most accurately described case of this sort is to be found in the collection of La Motte: the fracture was the result of a fall from a height; the two portions of the bone were slightly separated from each other, though the limb was half bent. It was placed in a state of extension, the knee enveloped in compresses, and with a bandage moderately tight. The cure was effected in twenty days, and the callus was not very apparent. About fifteen years ago M. Dupuytren received into the Hôtel Dieu a middle-aged man who had in falling from a great height, broken several bones; the right knee was enormously contused and deformed. The man died the third day after the accident. Examination discovered a longitudinal fracture of the patella into two nearly equal parts: the bones were moveable in all directions, and the capsular ligament contained some bloody fluid. About six months after this a man was brought drunk to the Hôtel Dieu; a carriage had knocked him down, and upon the leg, knee, and left thigh, were seen the traces of the wheel: this had passed from the upper to the lower part of the limb, and the patella was broken in the same direction. The limb was placed in a proper position, and a bandage applied. The cure was nearly complete when the patient was seized with peri-

pneumony, which carried him off twenty days after the accident. On examination it was found that the fragments were united by a well-formed callus, the apposition of the surfaces was exact, and every thing showed that the cure would have been perfect in less than a month. Three years afterwards a man came to the same hospital to be cured of a varicose ulcer of one of his legs: on examining the limb M. Dupuytren perceived that the patella was considerably broader than usual, and had a very evident vertical prominence. The patient, when questioned as to the cause of this appearance, said, that several years before, having had a fall, he had broken the thigh and leg in several places, and the knee-pan had been fractured at the same time: the motion of this bone on the condyles of the femur was free when the extensors of the thigh were relaxed, but it was then easy to discover the friction of a considerable bony projection, situated at the posterior surface of the patella. The following case is not less important:—

M. aged nineteen, a servant, small, dark-complexioned, and of a weakly habit, affected for some time past with chronic catarrh, fell by accident from the second story upon a glazed skylight, that broke with her weight: she was taken up from the paved court-yard with a contused wound of the left knee, and another very slight one on the head. She could not bear any weight upon the wounded limb. She was carried to bed, and the edges of the wound were brought together with a dry dressing. Brought afterwards to the Hôtel Dieu, the dressings were removed, and it was then seen that the wound was not united, and that the patella was broken vertically into two unequal portions: the smaller piece was very moveable, and at the end of a few days M. Dupuytren judged it proper to remove it in the same manner as is done with regard to pieces of any comminuted bone. The limb was kept motionless, and extended upon a pillow a little elevated. A considerable suppuration of the contused parts ensued, and the whole limb was the seat of violent pain. The state of the patient was not promising: the tongue was coated, the pulse sharp, small, and quick; the skin hot and dry, and the thirst great. The treatment of the vertical fracture of the patella requires, no less than that of other fractures, repose for the affected limb, and relaxation of the muscles attached to the broken bone. It has been recommended from theory to procure the contraction of the triceps femoris, in order to bring the two portions of bone together. This practice is bad, and experience shows that by causing the joint to project, the fragments of the bone are separated from each other, probably in consequence of the shape of the articular surfaces, and of the insertion of the capsular ligament round the fragments. The stretching of the soft parts does not answer better in this case than in the reunion of longitudinal wounds of muscles, which is also the result of theoretical views; whereas the best plan is to suffer them to remain in the greatest possible condition of relaxation. Besides, a passive state is the only one supportable for a certain length of time, and it must not be forgotten that patients very soon lose the power of sustaining an effort of permanent contraction. It results, then, from the preceding cases, that vertical fractures of the patella are not uncommon; that they depend always upon external force; that they are also accompanied by wounds and contusions of the part, demanding the especial care and attention of the surgeon; requiring local or general bleeding, absolute rest, a severe diet, and a favourable position for the wounded parts. The limb ought to be kept somewhat elevated upon pillows, and protected by a cradle from the pressure of the bed-cloths. In this position the fragments cannot separate from each other, and the formation of callus goes on favourably. It has been seen that this is not a long process; twenty or thirty days are sufficient for the purpose, and if the condition of the soft parts affords no obstacle, we should not prevent the patient from taking exercise, for the disposition of the broken portions of bone in this case leaves no ground for apprehending the elongation and deformity of the callus. Besides which, the application of a knee-cap, or a simple roller round the joint, gives it a degree of firmness capable of resisting any effort.—*La Clinique.*

60. *Operation of applying a Ligature on the distal side of Aneurisms.*—This operation has lately been performed by M. Dupuytren, in a case of aneurism of the subclavian artery. There was a slight hæmorrhage from the wound on the fifth day, amounting to about six ounces. The patient died on the twentieth day. The immediate cause of death does not appear very evident, from the notices of the case we have seen; when we receive an authentic account of the operation, we shall give the most interesting details.

61. *Lithotrity.*—The greatest triumph that M. Civiale has yet achieved, is the cure of the venerable Dubois, upon whom he has lately operated for the stone. M. Dubois has addressed the following letter to the editor of the Gazette de Santé, and which is published in that Journal.

Extract of a letter from M. Dubois to the Editor of the Gazette de Santé.—"Sir, allow me to acknowledge, by the channel of your Journal, the obligations which I feel to my colleagues, for the lively interest they have shown towards me, during my late illness, from which, by the skill of my friend M. Civiale, I have eventually been freed, so that my health is rapidly recovering. I feel proud to be able to add something to the recommendation of M. Civiale's method, which is an effectual substitute for one of the most painful and dangerous operations in surgery, and the invention of which renders his name worthy of a place in the list of the benefactors of mankind. I have the honour to be, &c. A. DUBOIS.

May 4th, 1829.

62. *Lithotrity.*—Two patients operated upon by M. Heurteloupe at the Hospice de Perfectionnement, were submitted to the examination of the surgeons of that establishment in the beginning of April last, and their cure recognised as complete. They were both cured at a single sitting.—*La Clinique.*

63. *Lithotrity.*—Professor Wattman, of Vienna, has performed this operation successfully in two cases. The first was a man aged forty, who had a stone of considerable volume; he was cured in five operations, performed between the 18th of May, and 22d of June, 1827. To accustom the urethra to the instruments, a straight sound, three lines in diameter, was introduced daily for nine days; the patient could not support the continuance of the sound longer than a quarter of an hour, the bladder being very irritable, and disposed to contract spasmodically.

The second case occurred in a man aged fifty-three; the calculus was thirteen lines in diamater, and was completely destroyed in nine operations performed between the 15th of December, 1827, and the 25th of January, 1828.—*Bull. des Sc. Méd. March*, 1829, *from the Medizinische Jahrbücher des k. k. østerr. Staates, Vol. III. No.* 4, 1828.

64. *Spontaneous Cure of Femoral Aneurism assisted by Pressure.*—A labourer, aged forty-three, had the right femoral artery tied with success by Mr. Lyford, at the hospital, for popliteal aneurism. In June last, nearly two years after the operation, he was occupied in mowing, when suddenly he felt something give way in the thigh, accompanied with violent pain, and succeeded by a throbbing at the part, which became so much aggravated at night as to rob him of his sleep. In the course of a very short time he observed a small tumour at the lower and internal part of the thigh, which gradually increased, till he made application at the hospital, at which time it was four or five inches in circumference, circumscribed, rather hard, but entirely reduced by pressure on the artery above. He could not at this time enter the house, and was directed to apply a flannel roller so as to occasion moderate pressure, and keep himself perfectly quiet at home. On the 27th of September he was made an in-patient, when the tumour was found to have greatly subsided, and had lost all pulsation. It now appeared that the pressure of the bandage having caused a

most decided diminution of pain, he had increased the compression from time to time, by tying a handkerchief tight around the thigh, the knot being placed directly over the centre of the aneurism. Three days previous to his admission the pulsation of the tumour had totally ceased, and since that time he had experienced sensations in the limb precisely similar to those which he had felt after the operation on the opposite. He also complained most severely of a burning heat immediately under the skin, as if from boiling water, trickling down the foot and leg. The temperature of both feet was alike.

Under these circumstances, pressure was reapplied by Mr. Lyford, by means of a tourniquet and splint, and in the course of ten days, on removing the apparatus, all appearance of swelling had entirely vanished, and so had every vestige of the disease. The knee-joint was at this time capable of perfect flexion and extension, and the patient being able to walk without any support was discharged cured.—*Med. Chir. Rev. July,* 1829, *from Provincial Medical Gazette, No. 1.*

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65. *Fracture of the Os Calcis.*—Mr. Costance relates in the *Midland Medical and Surgical Reporter,* for May last, a case of this rare accident. It occured in a woman aged fifty, who was thrown from the outside of a coach, by its overturning, and the ridge of the top of which fell upon her left heel. The os calcis was fractured, just below the insertion of the tendo-achillis, and the posterior portion was drawn up by the violent contraction of the gastrocnemii muscles, as high as five inches from its former position. Every attempt to replace or even to move this portion, was ineffectual. Notwithstanding the usual antiphlogistic means were sedulously employed, an extensive inflammation of the whole leg ensued, with sphacelation of the integuments, and sloughing of that part of the tendon, which was attached to the piece of bone, and also of the cellular substance all around it, exposing it distinctly to view. It was, however, so firmly attached to the parts beneath, that it could not be moved in any direction. Its upper surface exfoliated; "granulations by degrees filled up the surrounding parts, and the piece of bone was completely covered with new integument, at the end of four months from the accident. It was between four and five months before Mrs. D. could attempt to walk. The limb being much shortened, she was, at first, obliged to use a high-heeled shoe, but is now able to walk as well as ever, with a flat shoe, like the other, without pain, or any apparent lameness. The present, (Feb. 14th, 1829,) situation of the piece of bone is four and a half inches from its lower edge to the bottom of the heel; and a tape passed round the middle of it, over the two ankle bones, measures exactly eleven inches. The heel has now a sound and natural appearance, and feels like a soft cushion; the space which the fractured portion of bone formerly occupied being filled up with cellular substance. The new integument over the bone is thin and tender, and defended by a diachylon plaster, to prevent excoriation."

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66. *Case of Strangulated Hernia, in which six inches of the Intestine were removed.* By John Simpson, M. D. of Bath.—"A man, about sixty years of age, had long been troubled with a large inguinal hernia, which had frequently descended into the scrotum. In the year 1816, four days before Dr. Simpson was sent for, it had come down, and could not be replaced; it then became strangulated. Various and judicious measures had been adopted by a gentleman in his neighbourhood, but it became necessary to perform an operation. On opening the sac, a large quantity of fluid escaped; omentum and intestine were contained in it, and both were in a state of mortification. The stricture, which was at the inner ring, was divided, and great relief thus given; but the parts were glued together by old adhesions, owing to which the bowel could not be returned. Next day, the symptoms continuing urgent, an incision was made along the protruded intestine, when a very large quantity of black feculent matter was discharged. The following day he was better; and the mortified parts, consisting of omentum,

and six or seven inches of intestine, supposed to be ileum, were removed with the knife: very little bleeding occurred. A pad was applied over the upper part of the wound, which was removed occasionally, so as to empty the bowels. In about three weeks some feces passed per rectum, and in a few months the artificial anus entirely healed." Four years after he was alive and well.—*Midland Medical and Surgical Reporter.*

67. *Extirpation of a Cancerous Parotidian Tumour, and Ligature of the Primitive Carotid Artery.*—This report was made to the Royal Academy of Medicine, by M. Larrey, upon a case of M. Fouilloy, Second Surgeon of the Marine at Brest, Corresponding Member of the Academy.

A scirrhous tumour developed itself in the right parotid gland of a woman, who, after having supported it many years, at length decided, having reached her fifty-second year, upon getting rid of an evil which had been increasing for so long a time. In fact, at this period the tumour extended in a circular form from the temple to the ear, cheek, lower jaw, and one side of the neck, producing lancinating pains, preventing mastication, interfering with deglutition, and even with respiration. M. Fouilloy having decided upon removing the tumour, believed it his duty first to put a ligature upon the primitive carotid artery, to prevent the hæmorrhage which might have supervened in the course of the operation. The skin, in which a transverse fold was first made, was consequently divided in the course of the internal side of the sterno-mastoideus muscle; the cellular tissue which envelopes the artery was discovered, and the vessel itself isolated with all possible care; Deschamps' needle was passed behind it, conveying a ligature, which was tied without the occurrence of any accident, except that the face grew pale, and a momentary pain was felt. After stopping a few moments to allow the patient rest, M. Fouilloy proceeded to extirpate the tumour. On the posterior margin of this, a semilunar incision was made, and carried down to the deep roots which existed between the ear and the lower jaw on the one part, and the transverse apophyses of the cervical vertebræ on the other; by turning it forward, it was then detached from the parotid gland and masseter muscle, in the substance of which it was implanted; it was only necessary to place one ligature upon a vessel, (the internal maxillary,) among all that were opened. An enormous and very irregular wound was the result of this operation, which was closed by three points of an interrupted suture passed into the angular flaps. No accident followed. The ligature of the carotid artery detached itself at the end of fifteen days, and in seventy-five the cure was complete.

M. Larrey bestows upon the operation of M. Fouilloy, the just praises which it merits, and recommended that the account of it should be forwarded to the committee of publication. He, nevertheless, offered some observations relative to the principal circumstances connected with the case. In the first place, the ligature of the primitive carotid did not appear to him to be sufficiently demanded. The conduct of M. Fouilloy, it is true, may be justified by many examples: a surgeon of Lyons performed it to aid in the removal of a portion of the lower jaw affected with osteo-sarcoma; a North American surgeon, in a similar case, has even tied without danger both the carotids; and lastly, an English surgeon has not hesitated to have recourse to this measure for the purpose of arresting a hæmorrhage proceeding from the extraction of a tooth. Nevertheless, M. Larrey thought, that in the operation performed by M. Fouilloy, the placing of the ligature might have been very well dispensed with, which besides was not sufficient to prevent all the hæmorrhage, (because of the anastomoses existing between the branches of the carotid of the one side, and those of the opposite trunk,) since it was necessary to tie the internal maxillary artery; the successive pressure, or tying up of vessels as they may be divided, is quite sufficient to obviate all inconvenience, in proof of which Mr. Larrey referred to an operation of the same nature performed by himself and M. Ribes, without previously tying up the carotid. In the second place, M. Larrey believed, that in a similar case great advantage would result from operating upon the patient in his bed, instead of placing him upon a chair, as M. Fouilloy did. In this way syncope, which occurs so frequently under such circumstances, may be better guarded against. M. Oudet observed, in relation to hæmorrhages occasioned by the extraction of teeth, that cauterization had never with him been sufficient to arrest them, and that compression appeared much preferable. M. Larrey replied, that cauterization never failed when made without timidity, and the red hot iron was well sunk, even to the very bottom of the socket. He cited three cases of dental hæmorrhagy, one of which caused the death of the patient. M. Duval had never seen a case of this kind, and these hæmorrhagies have appeared to him easy to stop, either by plugging up the alveola, proper compression, or the simple application of the finger.

In an editorial note to this case, we read as follows:—"Called one day to a case of hæmorrhage from this source, which had lasted for twenty-four hours, and greatly exhausted the patient, (cold applications, astringents, plugging with wax introduced into the alveola, having been all used unsuccessfully,) I saw an immediate stoppage effected by the application of a small portion of agaric, kept on by pressure with the finger.—*Nouv. Bib. Méd. Jan.* 1829.

68. *Coxalgia treated by Mercury.*—Professor Fritz of Prague, censures the use of moxas and cauteries in the diseases of the hip-joint, and affirms that the treatment which he employs is always successful when the complaint has not advanced beyond the second stage. Thirty patients have been cured by him in the space of from two to three months. His method consists in the employment of mercurial frictions and diet. In children, he applies to the diseased hip, by friction, three to five grains of double mercurial ointment; the next morning before breakfast, the child is placed in a tepid bath, after which it is placed in bed; in the afternoon, a cataplasm of bran or of peeled barley is applied to the joint. All stimulating drinks or articles of food are forbidden. If there occurs an augmentation in the secretions, the frictions are suspended. In the third stage of the disease, Dr. F. asserts that the best remedies are rest and cataplasms. The inflammation of the other articulations, Dr. F. treats in the same manner, and with similar success.—*Medic. Chirurg. Zeitung*, 1828.

69. *Prolapsus Ani.*—Dr. Von Ammon, of Dresden states two cases of *prolapsus ani*, which he effectually relieved by performing Dupuytren's operation of excising portions from the circumference of the prolapsed bowel, in such a manner as to form a star-shaped wound. The bowel being replaced, the contraction produced by the healing of these incisions effectually prevent the recurrence of the disease. His first patient was a stout young woman, who had suffered many years, having a prolapsus four or five inches long. The other was an old and miserably cachectic woman of sixty-five, having a prolapsus three inches in length. Her condition was exceedingly unpromising, yet the operation restored her to good health. Dr. Von Ammon justly concludes, that Dupuytren's operation for prolapsus ani deserves to be ranked among the most valuable improvements of modern surgery. Previous to the operation the bowels should be well evacuated, that the rectum may afterwards remain undisturbed as long as possible. When the patient feels inclined to go to stool after the operation, an emollient clyster should be premised, to prevent the wounds in the bowel from being distended by hardened fæces. The sphincter ani and levator, which are generally exceedingly feeble and torpid in cases of prolapsus, soon regain their tone after this operation.—*Annalen der Ges. Heilk. March*, 1829.

J. D. G.

70. *Enlarged Scrotum Successfully Removed.* By E. Barcome, Esq.—In our second volume, p. 110, will be found an account of a large tumour of the scrotum, successfully removed by Dr. Wells, of Maracaybo; the *London Medical and Physical Journal*, for April last, contains a notice of a tumour of the same

part, of still greater size, successfully extirpated by Mr Barcome, of George-town, Demerara. A negro man, aged twenty-eight, muscular, by occupation a tailor and in enjoyment of good health till within the last four years, was much exposed for several weeks, while on militia duty, "at which time the right leg became painful, and swelled as high as the knee; soon after, the scrotum became similarly affected, and has increased to the present size. During this period he has been subject to occasional attacks of intermittent fever.

"Tumour broad at the bottom, and suspended by a narrow neck from the pubis; exterior covered with rugæ of different dimensions. Extremity of the prepuce has the appearance of a navel, from which the urine trickles. Does not evince any pain or suffering of any kind on exercising pressure; only inconvenience from its weight and bulk, which prevents his walking or leaving his house.

"*Operation.*—Avoiding the corpora cavernosa, two oblique incisions were made, commencing at the opening of the prepuce, and continued along the sides of the tumour, meeting below the testes. The dissection was continued to the tunica vaginalis, on cutting into which, a large quantity of limpid fluid (twenty-five ounces) escaped from the left side. The left testis was found to be scirrhous, and was removed in the usual manner. The spermatic vein and artery were the only vessels necessary to be secured during the operation, at which but little blood was lost. The integuments spared by the scalpel were drawn over the parts exposed, and held together by means of stitches and adhesive plaster, assisted by a bandage.

"The tumour, on examination after its removal, was found little vascular, and appeared to be composed of a bacon-like substance, intermixed with hydatids. Weight, twenty-five pounds.

"July.—Twenty-six days after the operation, the parts were healed, and the patient is now able to walk about and attend to his business."

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71. *Case of Amputation of the Lower Jaw.*—Dr. Anderson relates in the fifth number of the *Glasgow Medical Journal,* a very interesting case of this description. As we have not yet received the number of the Journal which contains the account of the operation, we derive the following notice of it principally from the Medico-Chirurgical Review, for April last. A female aged thirty-seven, was admitted into the Glasgow Infirmary, in 1823, "for a fungus of the antrum of the left side, which began two years before, after a long-continued tooth-ache. Dr. Anderson destroyed the fungus by exposing the anterior wall of the antrum, removing the whole of it, scooping out the fungus partly with the finger and partly with a lithotomy scoop, and burning the whole diseased surface with the actual cautery. A good part of the wound was healed by the first intention; but, owing to an attack of erysipelas, it required some time and country air to effect the complete cicatrization. During more than five years Dr. Anderson occasionally continued to visit this woman, during which time she suffered much from rheumatism, and broke the neck of the left femur, but had no return of the fungus in the antrum. In April last she complained of tooth-ache in the lower jaw, and a loose molar tooth was extracted, soon after which a fungus appeared in that situation. On the 5th of last September, Dr. A. saw the tumour, but did not feel warranted in operating on account of the state of her health, and the suspicion that the fracture of the femur had arisen from a malignant diathesis throughout the body. On the 23d of October, at the patient's request that something should be done, on account of the repeated hæmorrhages, Dr. A. advised a consultation with his colleagues of the Infirmary. At this time, a firm spongy tumour occupied the left side of the inferior maxillary bone, from the symphysis backwards to the angle. It felt soft and elastic —its upper surface was flat; sloughy, and indented by the teeth of the upper jaw—it pervaded the whole thickness of the bone; projecting below it towards the neck, where several small glands were felt enlarged, and above pressing inwards on the tongue, and outwards on the face—the grinders on this side

were carious, and the whole of the incisor teeth loose—a thin fetid fluid constantly oozed from the mouth—and hæmorrhage had repeatedly occurred to such an extent as to induce syncope. The tumour was occasionally affected with gnawing pain, which extended to the head; the countenance was sallow, the pulse 110 and small, the appetite bad, and the strength much reduced."

It having been decided, in consultation, to operate, the operation was performed on the 30th of October, in the presence of Professor Burns, Drs. Young, Maclachlan, and Auchincloss, Messrs. Weir, Cowan, Candlish, &c. in the following manner:—

"The ascending plate of the bone was felt to be sound beyond the tumour, and the operation was commenced with the intention of applying the saw a little above the angle on the left side, and at the canine tooth on the right side, by which it was expected that the whole of the diseased structure should be removed. Having seated her on a chair, I began by extracting the right canine tooth; but in doing this, the socket yielded so as to excite a fear that it was unsound, and I determined to include also the two anterior molares. The first incision extended from the angle of the mouth to the lobe of the left ear. The knife was carried through the masseter muscle, which was speedily detached from the bone, and the whole substance of the cheek being dissected from the anterior surface of the tumour, and from the chin, was turned downwards on the neck. A small straight saw, rounded off at the point, was now applied immediately posterior to the second grinder on the right side. When the bone had been about half divided in this way, it was snapped across with the forceps recommended by Mr. Liston. The same process was practised above the angle on the left side, and the bone, having the tumour attached to it, was then removed. Here I expected to have finished the operation; but on examining the anterior section of the bone, it was discovered, that notwithstanding the apparent soundness of its outer shell, the medullary cavity was filled with the same fungous growth with that which had protruded on the left side. A further exposure of the jaw, therefore, became necessary, and this was effected by detaching the cheek as far as the right angle, without any new external incision.

"'It now became obvious, that although there was no fungous protrusion on this side, there was even more extensive disease than on the opposite, and the necessity for extirpating the whole was a duty equally unexpected and imperative.

"'The previous removal of the bone on the left, permitted so much retraction of the cheek on the right side, that I at first attempted to complete the operation at the joint, from within the mouth; and in this, I believe I could have succeeded, having no occasion here to apply the saw. But expedition became a most important object; and I therefore divided the cheek as on the left side, from the angle of the mouth, as far *dextral* as the masseter muscle. Having detached this muscle from the bone, I experienced some of the difficulty described by others, in separating the insertion of the temporal muscle from the coronoid process. In effecting this, and endeavouring to open the joint anteriorly, by depressing the divided end of the bone, it broke across at the neck, immediately below the articular process. I proceeded to divide the pterygoidæi, and other muscles, towards the pharynx and mouth, by carrying the knife forwards in close contact with the inner surface of the bone, until the whole was removed. Having accomplished this, and finding that the fracture below the condyloid process had proceeded from diseased softening; I laid hold of the small portion that remained with a pair of tooth forceps. Along these I carried the scalpel, with which the capsular ligament of the joint was opened, and the head of the bone extracted. The whole of the lower jaw was thus removed, except that portion of the ascending plate, with its processes, measuring an inch and a half, which remained above the application of the saw on the left side. This, on examination, was found to be the only sound part, and even here the nerve was afterwards discovered by the microscope to be more pulpy than usual. The bony structure was quite destroyed where the tumour had protruded on the left side. Throughout the whole of the right side, even to the joint, the bone was uniformly enlarged, and contained the same spongy substance as had been observed at the first section with the saw; no part, therefore, was unnecessarily removed.

"'The hæmorrhage from this operation was less than I had anticipated, being more from the general vascular surface than from the division of important vessels. About a pound of blood was lost, and only two ligatures were found necessary. But the previous debility, and the urgent symptoms during the operation, were calculated to excite very serious alarm. She became excessively restless, alternately vomiting the blood which she had swallowed, and appearing about to suffocate from some obstuction about the larynx, probably similar to that which occurred to Professor Lallemand, viz. a reversion of the tongue from the contraction of the divided muscles, for which he was obliged to perform tracheotomy.

"'The wound, which had a hideous aspect, was quickly closed, by hare-lip needles at the angles of the mouth, and stitches and plasters towards the ears. Dossils of lint were inserted on each side of the tongue, and the whole was supported from without by a compress and bandage. The pulse was feeble, but distinct; the dyspnœa subsided. She had fifty drops of laudanum in brandy and water, through an œsophagus tube, and was put to bed.'

"On the fifth day after the operation this large wound had completely united except at a single point, from which the discharge of pus did not exceed a drop at each dressing. On the evening of the twelfth day she complained of pain at the upper part of the sternum, which returned several times next day with a feeble pulse, cold skin, and dyspnœa. She gradually sank, and died at 8, P. M. on the thirteenth day after the performance of the operation.

"On dissection, the union of the wound was found to be deep and complete, except at one spot, the size of a split pea, near the lobe of the left ear. The left antrum, from which the fungus had been formerly removed, was nearly three times its natural size, and contained about an ounce of yellow transparent fluid. It had no communication with the mouth—was lined with a firm, smooth, shining membrane—the anterior and upper walls were nearly an inch thick, but very soft; but towards the palate they were thin and almost cartilaginous. A fracture existed at the neck of the left femur, within the capsule, which had united by cartilage, without much shortening. In the upper part of the right side of the thorax there were found about eight ounces of sero-purulent effusion, whilst below these were firm adhesions between the lung, the pleura costalis, and the diaphragm."

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72. *Removal of Nævi.*—"A child, about three months old, was brought to Mr. Brodie on the 13th of February, with two nævi on the scalp. One about the size of a nut, was situated on the left side, a little anterior to the coronal suture; the other, rather larger, was placed further back, and over the median line, apparently at or near the fontanella. The first presented a sort of superficial scab, the traces of vaccination unsuccessfully applied by Dr. Locock; the other bore no such mark. The child was transferred to the operating theatre, and the following proceeding was adopted by Mr. Brodie:—A hare-lip pin was passed transversely through, or, more properly speaking, *under* the base of the larger nævus, so that either end of the pin projected beyond the margin of the tumour, for a quarter of an inch or more on each side. The pin being held in this position, a straight needle, armed with a double ligature, was then passed under the base of the nævus, and under the pin, which it crossed exactly at a right angle. The needle was drawn through, and cut from the ligatures, which were allowed to remain. The two silk threads were next separated, the one drawn to one side, the other to the other, and each tied tightly under each extremity of the hare-lip pin, the point of which had been withdrawn. The ligatures being thus firmly drawn, just as they are in the operation for piles, constricted and strangled the base of the nævus. The ligatures were once or twice

twisted round and round under the hare-lip pin, in order that the constriction might be perfect, when, after the pin had been included, (to prevent its slipping,) in one of the knots, the ends were cut close. The same proceeding was adopted with the smaller nævus, and the infant consigned to its mother, who carried it home. The pain was, of course, severe, but the child did not seem to suffer in any extraordinary degree.

"Mr. Brodie, in the course of some observations to the pupils, stated the mode in which he is accustomed to treat with success the maculæ or spots in children, arising from enlargement of the minuter vessels, without tumour. Selecting the largest of these little vessels, he punctures it with a lancet, and gently touches the puncture with the caustic potash, scraped into as fine a point as possible. Vinegar is immediately applied to stop the penetrating action of the alkaline caustic, and prevent the formation of a scar; which, indeed, would be full as bad as the disease. These cases, Mr. Brodie observed, seldom came under treatment except in the higher ranks, where personal appearance forms such a permanent object of attention."—*London Medical and Surgical Journal, April,* 1829.

73. *On Excision of Carious Joints.* By JAMES SYME, Esq. of Edinburgh.—Mr. Syme is of opinion that the best mode of destroying carious bone is excision, since more can be done by the gouge or cutting pliers in a few seconds, than by the actual cautery in as many weeks or months. In performing the operation, the surgeon ought to expose the bone very freely, and pursue his excision until he feels that he is cutting in sound bone. It is usual to apply the actual cautery after the diseased bone has been cut away; but this proceeding, Mr. S. says, is very objectionable; at least another scrape with the gouge would be ten times more effectual; and if it is all taken away, as it may and ought to be, what can be more preposterous than irritating anew a weak bone, thereby exposing it to the danger of a relapse? When the large joints are carious, it is much better to remove the articulating extremities entire, instead of attempting to cut away the diseased surface piece-meal, which in most cases, indeed, would be impossible.

In performing the excision of joints, it ought to be remembered that caries does not affect the bone deeply; and, therefore, that while the surgeon ought most carefully to avoid leaving any of the diseased *surface*, he should give himself little concern as to the thickness of bone which he removes. There is always much effusion of new bone for some distance, generally several inches round the carious portion, and the alteration of appearance thus induced is frequently mistaken for a morbid one. It is no more morbid, Mr. S. says, than the callus which unites a fracture, and ought, therefore, to be carefully distinguished. The surface presented by caries, is excavated, rough, and spicular, such as would result from burning a cellular bone, and then laying open its internal structure. The surface of effused bone, on the contrary, is convex and smooth; it looks as if the ossific matter had exuded in a fluid state and congealed into drops; so that while the carious part resembles a piece of sugar partially *dissolved* by water, the surrounding effusion of new bone has the appearance of sugar partially *melted* by heat.

"The excision of joints is usually regarded as a fearful operation, difficult, painful, and dangerous; the slightest wounds of healthy joints being known to be frequently productive of the greatest mischief, and hence the proposal to cut them out altogether seems equally rash and frightful. But it ought to be recollected, in the first place, that all the structure which excites so much disturbance by its inflammation, viz. the synovial apparatus, is removed when the joint is excised; and, secondly, that in cases requiring excision this structure does not exist, being destroyed by the previous disease. Carious joints, therefore, may be cut into with the same impunity as ordinary abscesses, and cut out with no more danger than what attends amputation, or rather not so much, since the balance of action will be less disturbed, *cæteris paribus*, when the limb is allowed to remain. As to the additional trouble and pain which unquestionably attend excision, they ought surely not to be grudged in consideration of saving a limb." Of all joints those which may be excised with most ease to the surgeon and benefit to the patient, are the shoulder and elbow.

Mr. S. published some time since two cases of the former, and he relates in the *Edinburgh Medical and Surgical Journal*, for April last, three instances in which he has performed the latter operation with success. We transcribe one of the cases. A ship-carpenter, aged forty-one, "somewhat more than a year ago, began to observe occasional wandering pain in the left elbow, together with some stiffness of the joint, but was not rendered unable to use the limb until between two and three months ago, when the swelling and pain became excessive, with violent disturbance of the whole system. The fever subsided, but the joint remained swollen still and very painful. An abscess was opened by the knife, and other apertures appeared spontaneously, which did not heal. In this state he applied to me on the 1st of January. On introducing the probe through more than one of the openings which have been mentioned, I readily passed it through the joint, grating against carious bones. I proposed excision, and meeting with the patient's ready consent, performed it on Sunday the 3d.

"Having placed the patient on a table with his face downwards, so as to present the elbow conveniently, I made two square flaps. Finding that the ulna was diseased quite down to the coronoid process, I sawed off the olecranon merely, and then cut away with the pliers whatever other parts required removal; by which mode of procedure, the obstacle afforded by the attachment of the *brachiaeus internus*, which proved so troublesome in the second case, was avoided. I then detached the head of the radius, which was completely carious over its whole articular surface, and removed the extremity of the humerus with the saw; but finding that the disease did not seem to be eradicated at the ulnar tuberosity, I cut away both it and the radial one, so as to leave no room for anxiety or doubt. No ligatures being required, I inserted five or six stitches, so as to keep the cut edges in contact, then applied some folds of caddis, and lastly, supported the limb by means of a roller.

"The wound healed entirely by the first intention, excepting a space not larger than one of the original sinuses, and the patient suffered no constitutional disturbance. In two or three days he was walking about, and by the end of a fortnight the cure might be considered complete. The motion of the joint, in flexion, extension, and rotation, is not at all impaired, and there is not the slightest deformity."

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74. *Case of Inflammation of the Mucous Mambrane of the Stomach and Large Intestines, mistaken for Hernia, and Terminating Fatally.*—This case is related in the *London Medical Gazette* for May 16th, 1829, by P. M. Hosking, Esq. as "a case of ventral hernia of one of the appendices epiploicæ of the descending colon, in which was present all the symptoms of strangulation where none existed;" it was, in fact, an instance of inflammation of the mucous membrane of the stomach and large intestines, aggravated, and in all probability rendered fatal, by the repeated exhibition of irritating and active purgatives. The abuse of this class of remedies we have reason to believe is pretty common, and we are therefore induced to give the whole details of the case, and shall hereafter present some other instances, of which we have a number in our possession.

The patient was a gentleman, apparently healthy and strong, aged about sixty-two years, who had been under treatment for an affection of the eye, from which he had nearly recovered. "He had had a small ventral hernia in the left iliac region, for the last three years, but having worn a truss, it had caused him no inconvenience." "When visited this day, April 1st, we found him lying on his back in bed with great prostration of strength, very small, weak pulse, but stronger in the right than in the left wrist; his tongue was furred; the bowels had not been opened since Monday morning, which was from a draught and pill ordered by Mr. Ware, and that produced but one motion. He had taken also last night, (Tuesday,) ext. coloc. co. gr. x.; p. opii, gr. j. in pil. ij. and ol. ricini, ℥ss. this morning before we saw him. The preceding Saturday, he complained for the *first* time of sickness, and he vomited frequently during that day, but the sickness and vomiting entirely ceased on Sunday after the bowels had been properly relieved. Early on Tuesday morning the vomiting returned, and continued at intervals, until we met on Wednesday morning. He now complained of pain, when the hernia, (which was about the size of a nutmeg,) was pressed with the fingers, and he had either hiccup or vomiting of a greenish bilious-looking fluid; he had also cramps in his legs and thighs. He was ordered to take ext. coloc. co. gr. x.; hyd. submur. gr. v.; M. in pil. ij. statim. and inf. rosæ, ʒvj.; magnes. sulph. ℥j. M. 4ta part. 2da q. h. a strong enema immediately, and a warm bath. 3 P. M. Mr. Vincent, Mr. Ware, and myself, met. The bowels have been freely evacuated twice, but the vomiting still continues. The bath produced great prostration of strength, but no impression was made upon the rupture, although the taxis was used whilst he was in the bath. Pulse 60; very small and weak. To continue the medicines as before, and apply a blister to the scrob. cordis. 9 P. M. When we met this evening, he was much the same; the bowels had not been opened, but as they had been so freely evacuated in the morning, Mr. Vincent deferred operating, conceiving that there could be no obstruction in the alimentary canal, but that a portion of omentum might be adherent in the sac, which would account for the hiccup and vomiting continuing. 12 P. M. I visited him: the sickness had in some measure been relieved; but his bowels had not been acted upon. He was taking ext. coloc. co. gr. x.; hyd. submur. gr. ij. M. in pil. ij. 4tis horis, and I believe some of them were retained. He complained on pressure of a little pain about the umbilicus, and hiccup.

"2d.—8 A. M. We met this morning, and found the symptoms in every respect as urgent; constipation, vomiting, hiccup, and great prostration. He had dozed a little in the night, and said he felt better. Pulse very small and weak. The cramps had left him since the bath. It was thought prudent still to defer any operation, to repeat the pills of colocynth and calomel, and to give an effervescing draught, c. tinct. opii, ♏x. and to apply another blister to the abdomen. 12 noon. Dr. Roberts met us in consultation; the symptoms were much the same as in the morning, excepting that he did not vomit so frequently. The effervescing draughts were continued without the laudanum, and with the addition of magnes. sulph. ʒj. the pills every four hours, as before; and to have the following enema:—℞. Ol. ricini, ℥jss.; sodæ muriat. ℥ss.; aquæ, ℥xij. M. ft. enema. 8 P. M. He had had one rather copious evacuation from the enema, and was apparently relieved. The draughts remained in the stomach some time, but he vomits occasionally. It was still considered adviseable to postpone any operation, as there was no indication of stricture of the intestine. To continue the medicines prescribed last. 12 P. M. When I visited him he was much the same: no relief of symptoms.

"3d.—When we visited him this morning at 8 o'clock he was no better. The bowels had not been opened, sickness continues, and he complains of pain about the rupture. The pulse is very small and slow, with great prostration of strength. Ordered to have the enema repeated. ℞. Hyd. submur. ext. coloc. co. a. gr. v. M. ft. pil. ij. 4ta. q. h. rep. Haustus c. magnes. sulph. ʒij. horâ inter pilulas mediis. To apply ten leeches to the abdomen. 3 P. M. The injection had returned almost immediately after being thrown up without any fæcal matter; he had not been able to keep the pills down. There appears great distress in the countenance, and he is evidently sinking. The pain in the abdomen is somewhat better, but he still has hiccup if the rupture is pressed upon. Persistat. 9 P. M. He has had no evacuation from the bowels and is in every respect worse. Ordered to have the following injection—℞. Inf. sennæ co. ℈j. magnes. sulph. ℥j. M. ft. enema. To take scammon. hyd. submur. āā. gr. iij. 4tis. horis. 12 P. M. When I visited him he at first did not know me, but soon recollected himself. The enema had returned without fæces; the vomiting had ceased; and he complained of no pain. I thought that he would not live the night through, and left him. At 4 A. M. I was called to see him breathe his last, which he did about ten minutes after my arrival: he was quite insensible at the time.

"*Sectio Cadaveris.*—Twenty-nine hours after death, Mr. Vincent and myself examined the body in the presence of Dr. Roberts and Mr. Ware.

"On opening the abdomen, no appearance of inflammation was visible upon the peritoneum. The rupture was found to be formed of one of the appendices epiploicæ of the descending colon, which was quite loose in the sac; there was not the slightest stricture or even discoloration of the protruded part. Two or three of the inguinal glands in the neighbourhood were very much enlarged and diseased, probably from the pressure of the truss upon them. A few inches below the hernia there appeared some *inflammation,* which, on opening the intestine, *was found to pervade the whole mucous membrane, down to the sigmoid flexure, where a very large ulcer existed, and which had entirely destroyed the structure of the surrounding parts:* this appeared to have been the cause of the pain when pressed on below the navel, although he did not complain except on pressure. The small intestines were healthy. On opening the *stomach* it was found *inflamed on its whole surface,* and several dark patches were visible, and had the appearance of the effects of chronic inflammation, and which doubtless was the cause of the constant irritation and vomiting. The liver was healthy, but the gall-bladder contained a great quantity of calculi, (about sixty in number,) of various sizes and shapes, and of a very dark colour."

MIDWIFERY.

75. *Cæsarian Operation.*—Dr. J. N. Engeltrum of Amsterdam, has given an account* of a female upon whom he performed the Cæsarian section in two successive labours. The first operation was completely successful; the child, a fine boy being delivered alive and the mother recovering perfectly in a few weeks, so as to resume her occupation as a washer-woman. This was in June 1824. In October of the following year, she found herself again pregnant, and on the 10th of July ensuing, Dr. Engeltrum again performed the Cæsarian section. Rather more blood was lost this time than before, though the quantity was by no means remarkable. A living female infant was removed from the womb, and the wound of the abdomen closed with stitches. She only survived till the evening after the operation; the child lived eight weeks. The death of the patient was attributed by Dr. E. to an entire atony of the womb, which did not contract in the least after the operation, leaving the wound through it quite open. On the first occasion the womb contracted immediately and firmly. The conjugate diameter of the pelvis was two and a half (Rhenish) inches.

J. D. G.

76. *Cæsarian Operation.*—Dr. Busch relates in *Gemeins. Deutsche Zeitschrift fur Geburtskunde, Vol. III. No.* 2, 1828, the case of a woman aged forty-seven, in whom he performed this operation—the patient died.

Two cases are also related in the report of the Obstetric Clinic at Paris, for 1827–8, in which this operation was resorted to by Professor Lovati. The operation was fatal in both instances to the mothers.

77. *Expulsion of the Placenta four Months after Delivery.*—A woman was delivered in January of a dead child, in which putrefaction had commenced in dif-

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* In "Nieuve Verhandelingen van het Genootschap ter Bevordering der Heilkunde te Amsterdam."

ferent parts of the body. The midwife made many useless efforts to extract the placenta: she pulled so hard, indeed, by the funis as to break it off. The placenta still remained in the uterus. The cervix uteri closed, and neither uterine pains nor any discharge indicated the probability of the expulsion of the afterbirth. The woman enjoyed a perfect state of health till the following May; slight pains and a sanguineous discharge then appeared. These symptoms lasted but a short time, and again returned. They were now more severe, and were followed by the expulsion of the placenta, the presence of which in the uterus, during so long a period, had been productive of no inconvenience.—*Gemein. Deutsche Zeitschr. für Geburtskunde.*

78. *Case of Twins.* By M. Ryan, M. D.—In the year 1827, we were called to a case in which one child was born on Monday, and a second on the following Friday. There was no hæmorrhage or untoward symptoms during the interval; the placentæ were united; the infants were born alive, but died in a week: the parturition was natural. A medical friend has assured us that he attended the wife of a soldier who had travelled by the stage-coach thirty miles three days after delivery, and on her arrival at the end of her journey she complained of swelling of the abdomen, which, on examination, was found to be a second infant. The labour was natural, and she suffered no inconvenience during her journey.—*London Medical and Surgical Journal, July,* 1829.

79. *Pregnancy with Cancer of the Cervix Uteri.*—Dr. Laubreis, a practitioner in Bavaria, has related two cases of this nature: the first proves that conception may take place, if the full term of utero-gestation be completed, notwithstanding the presence of carcinoma of the neck of the uterus, provided it be not far advanced. In the second case, the scirrhus was far in the ulcerative stage before impregnation took place, and the woman miscarried at the end of the third month, and died, by which an opportunity was affored of examining the parts. —*Journal für Geburtshulfe, &c.*

MEDICAL JURISPRUDENCE.

80. *Poisoning by Acetate of Morphia.*—Mr. G. a Brazilian by birth, student in medicine, in consequence of severe domestic trouble, conceived the idea of putting an end to his existence; for this purpose he procured twenty-four grains of acetate of morphia dissolved in one ounce of distilled water. Provided with this poison, he shut himself in his room, and drank the whole at six o'clock in the morning; six or seven minutes afterwards he began to feel its effects, lost his recollection, and remained in this condition without help till four o'clock in the afternoon. The master of the house, astonished at not seeing the young man make his appearance, knocked at the door of his room; no answer being returned, he caused it to be opened, and found Mr. G. stretched upon the bed, labouring under frightful convulsions. MM. Orfila, Richard, and Tacheron were successively sent for, and found the patient in so desperate a state that they requested the landlord to inform the commissary of the quarter of the fact, not expecting Mr. G. to survive many bours. Nevertheless the most prompt succours were given: he was bled in the arm, and vinegar and water and a strong infusion of coffee were administered. To the great astonishment of the medical gentlemen these means were entirely successful and the patient is now convalescent.—*La Clinique,* 1829.

81. *Infanticide by Omission.*—Can infanticide be committed on the body of a child that has never breathed? The April number, (1829,) of the *Nouvelle Bibliothèque Medicale,* contains an important decision of one of the French tribu-

nals on this disputed point of medical jurisprudence. We shall omit the history of the case previous to the birth of the child. It appears that the woman had been delivered, but had made way with the infant; this she accounted for as follows, "She declared that if she had brought forth a child, it must have been the evening previous, whilst in the privy; that in fact at that time she felt her body open, *(senti son corps s'entr 'ouvrir,)* but that she was not sensible of any infant being born." On a search having been made the body of the child was found in the privy, and an examination instituted by a physician. He found, "1st. That it was born at the full time, viable, and well-formed. 2d. That nothing demonstrated whether it had been deprived of life before or after its birth. 3d. That it had never breathed after its birth, which appeared to have been the cause of its decease." The physician also added that "it is erroneous to consider that life cannot exist without respiration. When a child is first born, it may preserve its extra-uterine life, which although not an individual existence, certainly is not death." On this report the tribunal declared, "that the child neither died before or after birth, and that want of respiration prevented its continuing to live." Such is the extraordinary decision of the court, embracing one of the most complete paradoxes we have ever met with. It declares that the child did not die, yet convicts the mother on account of its death; it also declares that it did not die either before or after birth, and hence should still be living. We do not object to the principle of responsibility in such cases, but surely the decision of the court might have been based on more rational grounds.

82. *On Arsenous Acid, considered in a Medico-legal View.* By M. Orfila.—It is generally supposed that the arsenous acid reduced to powder, gives out an odour of garlic when it is volatilized upon burning charcoal, upon a red hot plate of iron or of copper, in a crucible the temperature of which is elevated, &c. It is easy, M. Orfila says, to show that this is not the fact, except in the case where the arsenous acid is placed upon burning charcoal, which abstracts its oxygen, and revivifies the arsenic. If the arsenous acid is volatilized in a crucible upon a plate of iron or of copper, no smell of garlic is perceptible; this odour is given out only by the metallic arsenic.

M. Orfila calls attention to another circumstance, which is to determine what will occur when arsenous acid is placed upon burning charcoal, and a clean plate of copper is held over the vapour, not, however, that he considers this character of any value in detecting arsenous acid, but because authors have differed. Some say that the plate will be covered with a coat of black, others of white. Experiments prove that both these assertions are true, and that the copper is blackened, if the plate be held close to the charcoal, and whitened if two or three inches from it. The first is owing to the arsenic being reduced to a metallic state, which is black; the second, to the formation of white arsenous acid, by the union of the vapour with the oxygen of the air.—*Nouvelle Bibliothèque Méd. July,* 1829.

83. *Death from Phosphorus.*—A chemist at Biel, wishing to make experiments on the action of phosphorus, took a grain of that substance with sugar on the 20th of October last; next day he took two grains; and on the 23d three grains. Towards evening he experienced great uneasiness, particularly in the abdomen; but these symptoms he unaccountably attributed to rheumatism, and employed no remedies. On the 24th he was seized with a constant vomiting, and the matters ejected had the odour of garlic. Medical assistance was now called on, but without avail; inflammation of the alimentary canal took place; on the 29th he had spasms, and the left arm became paralyzed; he was delirious, and soon after expired, having fallen a victim to his incautious experiments.—*Lond. Med. Gaz. July* 11, 1829.

CHEMISTRY.

84. *Adipocire.*—Dr. **Bostock** says that he has lately had an opportunity of proving decidedly, that adipocire is the immediate production of the muscular fibre, not, as has been supposed by some eminent chemists, a mere residue of the fat, after the destruction of the muscle. He obtained a portion of a human thigh, which, in consequence of long maceration in water, had undergone the change in question, the form of the muscles was preserved, and there was no apparent loss of substance; there was even an indistinct appearance of the fibrous texture. On heating portions of this substance with alcohol and with ether, the whole was dissolved, except the cellular web, which was left exhibiting its ordinary structure, and forming one-twelfth part only of the whole. An observation of nearly a similar kind had been previously made by Dr. Thomson; Ann. Phil. XII. 41.—*Med. Chir. Trans. Vol. XV.*

85. *Analysis of the Bark of the Root of the Calotropis Mudarii.*—According to Professor **Duncan** this substance yields on analysis, 1. An extractive matter, (mudarine,) soluble in alcohol and in water, which is probably its active constituent; about 11.5 *per cent.* 2. A resin remarkable for its requiring a temperature of at least 212° for its liquefaction, and for its little solubility in cold alcohol; about 4 *per cent.* 3. A gummy matter, probably not freed from extractive; about 8 *per cent.* 4. Starch in considerable quantity. 5. Albumen. 6. A little fixed oil. 7. Vegetable fibre. It contains no volatile oil or other volatile principle.—*Ed. Med. and Surg. Journ. July,* 1829.

86. *Mode of Preparing Animal Charcoal.*—Chop up veal, (a part containing ribs,) into small regular pieces, and char these in a coffee-roaster or drum, which is to be kept constantly revolving before a strong regular fire. After the combustible gas begins to escape, which is rendered evident by the flame that plays about the roaster, the charring should not be continued longer than a quarter of an hour, or the coal will become useless. The dose is from one to two or three grains per diem; larger doses are dangerous.

According to Professor Liebig, the activity of this substance is owing to a *new acid,* which is called krokon säure or krokon acid.—*Journal der Practischen Heilkunde.*

87. *Detection of Corrosive Sublimate.*—M. **Orfila** discovers that the test proposed by James Smithson, of dipping a strip of gold, surmounted by a spiral of tin foil, into the suspected liquid, and adding one or two drops of muriatic acid, does not afford a certain indication of the presence of mercury. The gold becomes whitened without it, by the action of the muriatic acid on the tin; this effect ensues, even in a solution of common salt, made by adding twelve drops of a saturated solution of muriate of soda to one and a half ounce of distilled water. When, however, the strip of gold becomes whitened in the experiment, it may be ascertained by strong muriatic acid, whether the effect has been produced by mercury or by tin. If the latter, the tin dissolves entirely and the gold resumes its primitive colour, but if the gold be whitened by mercury, it resists the action of the acid, and remains of a grayish white. The muriatic acid in this case must be pure, for aqua regia will remove the colour in either case.

But the most delicate test of mercury is, after whitening the gold of this little galvanic apparatus, to coil the strip of gold, place it in the bottom of a tube, draw out the tube at the other end so as nearly to close it, and then by heating the bottom expel the mercury from the gold, and allow it to condense in the contracted part of the tube. The smallest portions of mercurial salt may in this way be detected.—*Ann. de Chimie Médicale, June,* 1829.

MISCELLANEOUS.

88. *Influence of Temperature on the mortality of New-born Children.*—MM. Milne Edwards and Villerme, addressed to the Royal Academy of Medicine, in February last, a memoir on this subject; the following are the conclusions to which the researches of these gentlemen have led them. 1st. From birth until the age of three months, the greatest mortality is during the cold months of the year, whilst the reverse is the case subsequent to the age of fifty years. 2d. The mortality is greater among new-born children in northern than in southern countries. 3d. That in the north, the mortality among infants is greater during the winter than at any other season, all other things being equal.

M. Jalin Fontenelle communicated to the Academy in April last, the following results, derived from the researches of Dr. Trévisen upon the same subject, made in Italy, principally at Castle Franco, and its environs. 1st. In Italy, in the months of December, January, and February, of one hundred new-born children, sixty-six died during the first few months of life, and fifteen more in the course of the year, so that only nineteen survive the first year. 2d. That of one hundred, born during the spring, forty-eight survive the first year. 3d. That of one hundred born during the autumn, fifty-eight survive the first year. 4th. That one hundred born in summer, eighty-three survive the first year. Dr. Trévisen attributes this mortality among new-born children, entirely to their exposure to the cold, in taking them to chapel to be baptised.—*Nouvelle Bibliothèque Médicale, March and May,* 1829.

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89. *Innocuous Nature of Putrid Exhalations.*—A committee has been engaged in France in examining the circumstances relative to the knacker's operations. His business consists in killing old worn-out horses, and turning every part of their body to account. The most singular results which the committee have obtained relate to the innocuous nature of the exhalations arising from the putrefying matter. Every body examined agreed that they were offensive and disgusting, but none that they were unwholesome: on the contrary, they appeared to conduce to health. All the men, women, and children concerned in the works of this kind had unvarying health, and were remarkably well in appearance and strong in body. The workmen commonly attained an old age, and were generally free from the usual infirmities which accompany it. Sixty, seventy, and even eighty, were common ages. Persons who live close to the places, or go there daily, share these advantages with the workmen. During the time that an epidemic fever was in full force at two neighbouring places, not one of the workmen in the establishment at Mountfaucon was affected by it. It did not appear that it was only the men who were habituated to the works that were thus favoured; for when, from press of business, new workmen were taken in, they did not suffer in health from the exhalations.

In confirmation of the above observations, similar cases are quoted. Above two hundred exhumations are made yearly at Paris, about three or four months after death: not a single case of injury to the workmen has been known.

M. Labarraque has observed that the catgut makers, who live in a continually putrid atmosphere, arising from macerating intestines, enjoy remarkable health.

Similar circumstances were remarked at the exhumations of the Cimetière des Innocens.

Whatever disease the horse may have died of, or been killed for, the workmen have no fear, adopt no precautions, and run no risk. Sometimes, when strangers are present, they pretend to be careful; but, in private, really laugh at such notions. They handle diseased as well as healthy parts, always with impunity. They frequently cut themselves, but the wounds heal with the greatest facility; and their best remedy is to put a slice of the flesh about the wound.

On making enquiry of those to whom the horse skins were sent, and who, besides having to handle them when very putrescent, were more exposed to effects from diseases in the skin, they learnt that these men also, from experience, had no fear, and never suffered injury. Horse-skins never occasioned injury to those who worked them; but in this they differed from the skins of oxen, cows, and especially sheep, which sometimes did occasion injury though not so often as is usually supposed.—*Lond. Med. and Phys. Journal, March*, 1829, *from the Recueil Industriel.*

90. *Statistics of Mental Derangements, Suicides, and Sudden Involuntary Deaths in Paris.* By Dr. FALRET.—We have not seen the work of Dr. Falret, to which the prize of statistics has been awarded by the Royal Academy of Sciences, but we extract from the Report made to the Academy on the subject, by Dr. Serres, and published in *La Clinique*, for 9th June last, the following interesting particulars. It appears that the work has been drawn up with great care, and is founded on perfectly authentic documents, embracing a period of thirty years.

Mental Derangement.—The number of females who become deranged is one-third greater than of males; as relates to the period of the *invasion* of this disease, July holds the first rank with regard to women, more becoming deranged during this month than in any other; but with respect to men it holds only a third rank. Among men, more than one-fourth of the deranged are unmarried. Mental derangement occurs most frequently in men between the age of 30 and 39, and in women between the age of 40 and 49. Melancholy is the predominant affection among females, and a desire to commit suicide among males. The same contrast exists relative to cures, deaths, and relapses.

Suicides.—In men a greater number of suicides occur in April than in any other month, whilst as respects women, this month holds only a fifth rank; more women commit suicide in August than in any other month. Of the males who commit suicide, the greater number are bachelors; whilst of the women the greater number are married. With respect to the influence of concubinage upon the production of suicide, its influence is nearly three times more powerful in women than men. In men, most suicides are committed between the age of 35 and 45, in women between the age of 25 and 35. The next period during which most suicides are committed by men is between the age of 45 and 55, whilst in women this holds only a fifth rank; but twice as many suicides are committed by girls under the age of 15, as by boys under that age. With regard to the means employed for self-destruction, a marked preference is given by men for cutting instruments and fire arms, whilst women destroy themselves by poison, falling from heights, or by asphyxia produced by charcoal. The influence of unfortunate love and of jealousy is twice and a half more powerful in women than men, whilst in men a reverse of fortune causes three times more suicides than in women; disappointed ambition causes five times more victims among men than among women; finally, misery alone is equally fatal to each sex.

Sudden Involuntary Deaths.—Apoplexy constitutes the cause of more than one-half of sudden deaths. The number of those who died of apoplexy, between the 1st of January, 1794, and the 31st of December, 1803, was 399; between the 1st of January, 1804, and the 31st of December, 1813, 979; between the 1st of January, 1814, and the 31st of December, 1823, 919. Total, 2297. It thus appears that the proportion of apoplexies, in relation to the population, was one-third more frequent during the two last periods than during the first, which the committee ascribe to the influence of the moral causes to which France has been submitted during the last twenty years. These causes have more especially called into action all the springs of ambition, and as ambition is more fatal to men than women, it explains the enormous disproportion of apoplexies in the two sexes. Of 2297 apoplexies, which occurred in 30 years, 1670 were in men, and only 627 in women. The ages at which apoplexies most frequently occur, are—1st, between 55 and 65 years; 2d, between 45 and 55; 3d, between 35 and 45. Under the age of 35, apoplexies are extremely rare. Apoplexies occur more frequently in winter than summer.

AMERICAN INTELLIGENCE.

Case of Supposed Poisoning with Arsenic. Reported by SAMUEL JACKSON, M. D. of Northumberland.—There died in this town, during last February, a man named Logan, as I supposed of inflammation of his vein from bleeding. He had cut his foot, by which he lost a large quantity of blood, and when this had healed, he went abroad on an intensely cold day and came home drunk. The next day, the 1st of February, he was attacked with inflammatory fever, with pain in his head, back, limbs, and particularly in the leg which he had recently cut. I treated him by bleeding, purging, and all the antiphlogistics; but the house was so open that it was impossible to keep it warm, and the poor man was sometimes so destitute of wood that I was obliged to send him some from my own house. Hence he often complained of having taken a fresh cold, and he imputed to the openness of a window near which he lay, a slight cynanche tonsillaris and cough, which came on about the fifth day. The sixth and seventh days the fever appeared to yield, but on the following morning his wife came for me at an early hour, with information that he was worse.

His fever had increased, and when I took his arm for the purpose of venesection, he said that it hurt him. I found that one of the former orifices was open, swelled, pouring out a bloody, serous fluid, and that a red streak proceeded from it three inches up the arm. The antiphlogistic measures were resumed, he was copiously bled, and a large blister put over the orifice. But the inflammation steadily increased with a hard, wiry, jumping pulse, and I particularly remember that his skin was very dry and hot. The next morning, twenty-four hours before he died, the pulse was unsubdued, the patient very weak, the skin still dry and hot; he was slightly delirious, unless when his attention was excited; there were some fits of anhelation, but no pain in the breast; the arm was very painful on the least motion. I now perceived the idea of great danger, but a dubious remedy being better than none, he was bled again. The blister, to which I had trusted so much, rose well, but without benefit. He had taken small doses of tart. emet. the sixth of a grain every hour, during much of his sickness, and as his stomach bore them well, they were continued through this day till midnight.

At this hour I visited him for the last time, and found him with dry, hot skin; pulse corded and strong, probably the strength of weakness; slight delirium; anhelation; complaining of nothing but his arm. He was now bled as a last and hopeless resort, but he became faint with the loss of six ounces, though lying on his back. I stayed till the pulse rose again into hardness and strength, but did not dare to detract more blood. A large blister was now applied higher up than the former. All medicine was discontinued, his drink was green tea and cold water; his food panada, of which he was desired to take frequent and small portions.

I now considered that his arterial system was in such irritation as not to be subdued by any means that could be used in his present weakness, and that he must necessarily die of the inflamed vein. During the remaining six hours of his life, he complained of nothing but his arm and the blister. With this, indeed, he became so outrageous as to make violent efforts to tear it off. He slept none, was slightly delirious, and frequently insisted on leaving his bed. Near six o'clock he said he was better, but upon making an effort to raise from bed, he fainted and died in a few minutes.

The above recollections of the case, I recorded after an interval of eight days from his death, when it began to appear that an inquisition was to be instituted. Many particulars may have escaped me, but the outline as above recorded is correct and true.

Dr. Rodrigue and myself went prepared to make a thorough examination of the body, but as the widow refused to leave the house, and as there was no other room, we contented ourselves with merely dissecting out the inflamed vein. This the doctor did in great haste, while I was comforting the woman in a fit of hysterics, and therefore he did not explore the utmost extent of the inflammation. He brought away about eight inches, and upon opening it, we found through its whole extent, the most perfect specimen of intense inflammation we had ever seen. There was no pus nor any thing similar. We agreed in opinion that if this had not been the sole cause of his death, it had at least hurried on the fatal event.

The whole course of this man's sickness was, as I thought and still think, perfectly natural till the inflammation of the vein took place. I had several similar cases during that month, and I remarked to his mother at the time, the wonderful similarity between his case and that of his brother. I did conceive that poison could have no part in the matter, for during the whole course of his disease there was no puking, no purging which was not the effect of medicine, no pain nor sensation of heat in the stomach or bowels, no nausea which was not apparently the effect of febrifuge doses of tart. emet. no spitting nor hiccough, no cold sweats, the teeth were never on edge that I heard of, no inordinate thirst, no cramps, numbness, or paralysis of the extremities, stools not unnatural, countenance not changed, the blood was not dissolved after death, the lungs were said to be sound. He complained during the last three days of nothing but his arm, and the fever thereby excited; his pulse was strong, far beyond his general strength, which is truly characteristic of some direct irritation of the heart, but not found in lesions of the stomach. It was remarked by the inquest that the body and countenance were perfectly natural.

We are not unaware that patients have been known to die of arsenic without pain, but this always happened when such large doses had been taken as to destroy life without reaction, and therefore the principal symptom was frequent syncope. In these cases there was no inflammation. If arsenic had been the cause of this man's death, it is most clear that it must have been the cause also of that inflammation and erosion which was afterwards supposed to be seen in the stomach, and how he could take a sufficiency of the poison to inflame and erode the stomach, without exciting some corresponding symptom, is utterly incomprenensible and without a parallel. Even when Fow. solut. is given a little too freely, it is followed by vomitings, bloody dysenteric stools, and paralysis of the extremities; but nothing suspicious was discovered in Logan's case, though I visited him two or three times every day, and four times the day and night before he died. To reconcile the phenomena of the disease with the known effects of arsenic, we conceived to be impossible. This has been our unvaried opinion from the very first, others think differently—let every competent reader judge for himself.

A few days after Logan was interred, it was discovered that his wife had procured arsenic from an apothecary, and hence some suspicions arose that he had been poisoned. Many little circumstances, altogether trivial and irrelative to the business, had they been properly understood, were soon ascertained and put into the public mouth; the woman's virtue began to be suspected, and it was reported that she had been intimate with a neighbouring gentleman. It seldom happens that reason is listened to amidst popular clamour, hence the coroner with his inquest took various depositions with respect to the man's sickness and death.

My evidence, a copy of which now lies on my table, was in perfect accordance with the above statement of facts.

Sarah Martin, a respectable woman, deposed that a daughter of the deceased "stopped at her house, and said her mother had sent her to Goheen's for ratsbane, and they would not give her any at Goheen's, but she got it at Hobart's; she said that her mother wanted to give it to the rats and mice, for they eat all her butter. The child was about seven or eight years old. The outside paper was white. This was on Thursday or Friday before his death," the 5th or 6th of February.

George Lothy, Hobart's shopkeeper, testified that the woman had obtained ʒij. arsenious acid from him, on the 30th January, and that a little girl, about eight years old, he knew not whom, nor could he describe her, had bought some from him about three days before.

Davis Goheen testified that a girl, about eight years old, entirely unknown to him, and whom he could not describe, procured two cents worth of this poison, about two or three weeks before this time, the 21st of February.

It was at once determined by common consent, that the child was the same in both cases, and that it could be no other than Logan's daughter; and though the girl resided at this time less than four miles from town, and might have been identified by either of these apothecaries, had they seen her so recently, yet no effort was made by the inquest to produce her in proof or disproof of this hasty but important assumption. Some other persons were sworn, but their testimony was altogether trifling or irrelevant, and when properly understood went rather to clear than to convict the woman. One witness testified that the salts which Logan took contained shining particles, and when I sent for my jar of sal. glaub. *out of which these were obtained,* to show them to the witness, and explain to the inquest the appearance of this medicine when half effloresced, they obstinately refused to look at them. The body was then disinterred, and committed to three medical men, sworn to ascertain if possible the cause of the man's death; and after two whole days spent in this part of the business only, they made in writing the following ominous report, in consequence of which the woman was committed to prison.

"We, the board of physicians appointed to enquire into the cause of the death of William Logan, respectfully beg leave to report, that after a patient examination of the stomach of the deceased, as also its contents, we are of opinion that he died in consequence of poison from arsenic, the same being evidenced both by the appearance of the stomach and a variety of chemical examinations to which its contents were subjected—all clearly indicating the presence of that poison.

W. N. ROBINS.
D. GILBERT.
JOHN B. PRICE.
ISAAC HOTTENSTEIN."

This last gentleman, and one other, who refused to attend, were added to the commission at the desire of the inquest, after the first day's examination.

The circumstances favourable to the accused were as follows:—Her husband had been heard by his sister, a woman of unquestionable character, to complain that the rats were so troublesome that he could not rest at night; (this she swore before Ch. Heck, J. P.) and Andrew Carothers testified before the grand jury, that he had heard the accused tell her husband the rats would eat all their potatoes. She always told a consistent and probable story concerning the arsenic procured by herself. She said that her husband had determined to poison the rats, and was therefore about to send his little daughter to the apothecary for arsenic; that she had a great dread of this article, and after some disputation with him about the safety of using it, she promised to procure it herself, rather than let her child go on this dangerous errand; that when she brought it home her husband was about to mix it with flour, and that in her dread for the safety of her family, she threw it into the fire; that if any portion had been procured by her daughter, it was by her husband's directions, which might have happened as she herself had been frequently absent about that time among her neighbours, where she worked hard for means to support her family. The child declared that her father sent her to Hobart's for poison when her mother was absent; that when he received it, he was drunk and spilled it on the hearth. The testimony of Sarah Martin, that the child said she had been to Goheen's where they refused her the poison, but that she obtained it at Hobart's, was nullified by Goheen himself, who swore before Ch. Heck, that no one had been denied arsenic at his shop; and it was again disproved by the fact, that neither Hobart nor his boy had sold arsenic on either of those days, the 5th and 6th of February, nor indeed since the 30th of January. But the testimony of Sarah Martin can be thus explained: on the very days and the very hour of the days on which she deposed that Logan's daughter called at her house with the paper of poison, the child came to my shop for sac. sat. which was wrapped as Mrs. Martin said the arsenic was, in the same whitish paper and making about the same bulk. Now, when I questioned the woman before she was arrested, she said that her daughter having opened the paper of sac. sat. which she obtained on Thursday and spilled some, she told the child that this was poison she was going for, and that she must not open it; the daughter asked—is it the same poison that Papa sent me to Hobart's for? Yes—without thinking or enquiring further about the matter, till she found herself brought into suspicion. The honesty and simplicity of this story must be apparent to every one. I particularly remembered having expressed my surprise on Friday morning that all the lead had been used, and that the mother told me Mary had spilled it, upon which I directed her to send for more.

A circumstance of no little importance was, that she appeared to have no motive whatever, for so hideous a crime. She had never lived on bad terms with her husband, and there was no hope the most distant of her being bettered by his death. She was of a compassionate, benevolent temper; had attended him faithfully during his sickness; had come to me personally several times when he appeared to be worse; had come once in the night, as he said himself, contrary to his express design; had several times requested respectable neighbours to visit him, thus showing no signs of mystery. When I requested permission to open the body she granted it in the presence of a good witness, without the least hesitation. She showed no signs of fear in facing any person on the subject, and so loosely was she guarded by the kindness of the Sheriff, that she might have made her escape at almost any time; by night or day with the utmost facility.

From the whole business of the examination, I was most carefully excluded, though I had been the man's only physician. Some of the most respectable inhabitants went forward and desired that I might be present, as I was the oldest physician and supposed to be more versed in post mortem examinations; several of the jury made the same request, and particularly the foreman, but in vain.

The following is a copy verbatim of the minutes of their proceedings, as taken by Dr. R., their chairman, and very politely put into my hands.

"So soon as the stomach was exposed, ligatures were cast around the cardiac and pyloric orifices, so as to prevent the escape of its contents. It being removed, a longitudinal section was made through its anterior part—the contents were then put into a clean earthen dish.

"The general appearance of the stomach presented that of inflammation, but more so in the posterior part, (considering the subject in an erect position,) commencing about midway between its cardiac and pyloric extremities, and spreading towards the latter—the villous lining of which was discoloured and eroded, presenting an inky appearance, apparently the effect of some corrosive substance, (though frequently the effect of some other cause than arsenic.) The dissection of the vein was continued to the shoulder, the inflammation did not appear to extend more than an inch, &c. (*Something wanting here.*)

Before we proceed further with this report we shall stop to discuss the state of the stomach, since it is necessary to put into competition some conflicting opinions.

Dr. G. one of the examiners testified thus on oath before Israel Pleasants, J. P.

"The stomach generally upon its internal surface, presented an inflamed appearance. The inner coat of the posterior part, in an erect position, being between the curvatures, and nearly equidistant between the two extremities, approaching nearest the cardiac orifice, was discoloured and corroded to the extent of from eight to ten square inches. The discolouration was bluish-black or rather inky. The erosion was such as to destroy the texture of the inner coat which was easily removed. The parts of the stomach adjacent to the discoloured part, or rather the whole floor of the stomach when in a supine position, was more inflamed than any other parts."

Dr. Hottenstein, another examiner, sworn at the same time in these words: "I found on the interior surface of the stomach a large dark spot about two and a half inches diameter. Some small dark spots between a gray and a black, were scattered over the internal surface of the stomach, some as large as a pin's head; but not elevated. On the outside of the stomach over the large dark spot there was considerable marks of inflammation. The blood-vessels had been considerably enlarged, as I thought, compared with those of a sound stomach, and of a red colour or pink. The villous coat on the large dark spot had been considerably eroded and softened, but not eaten through—I did not see any ulceration. The stomach had a pale appearance except near the pylorus where it was yellowish. I don't recollect any other marks of disease. I never saw a stomach ulcerated or inflamed. An attempt was made to obtain the garlicky odour from either the precipitates or the dried contents of the stomach, but we did not distinctly perceive it. No experiments were made on the precipitates that I know of—I think they were thrown into the fire."

Wm. A. Lloyd testified on oath at the same time, that he saw the stomach within two hours from the time it was taken from the body, that he had seen several other human stomachs both inside and outside, that Logan's appeared to be good and sound excepting the coloured part, that he particularly examined this coloured part, which was of a lead or a French gray about as large as the palm of his hand, that the outer coat was perfectly sound and not coloured, that he held it up and saw no redness but the veins, that the intestines looked white on the outside, he did not see them opened. Also that Logan was an intemperate drinker for the fourteen years that he had known him and employed him occasionally, that he would sometimes drink half a gallon a day, and would become drunk before dinner."

Here then are some direct contradictions, which can be explained only by supposing that every one had a right to make up his own opinion, in a matter not perfectly understood. As to an *erosion* by arsenic, this is not consistent with true pathology, since it has been demonstrated that the poison does not act chemically on the living solids; and as to the supposed inflammation, it appears to be a mere matter of opinion whether any existed. Dr. H. saw none except in the outer coat over the dark spot; but as none of the others observed this, it is more than probable that the "appearance of inflammation" was owing to the arteries being rendered more apparent by the accidental tenuity of the inner coat. The Doctor saw no inflammation in any other part of the stomach; Mr. Lloyd saw none, even here, and no man was likely at that time to scrutinize the subject with greater severity.

If we are not greatly mistaken, the experienced pathologist will find this to have been a genuine case of *ramollissement,* confined most probably to the villous coat; and as this lesion is now presumed to be the effect of phlogosis, either acute or chronic, we have only to refer to the habitual intemperance of the man for an entirely satisfactory explanation of the whole phenomenon. He was at least forty years old, and has been very intemperate in the use of our country whiskey for many years, an article which as it is here made, must often contain some verdigris. That the continued use of this poison should excite chronic inflammation of the stomach is not to be called in question; and in fact some weeks before his death he was heard by Andrew Carothers to complain of this part, and to say that he should not live much longer. All parts of the stomach except the dark spot were probably healthy, and a chronic inflammation of so small a portion might not afford any severe symptom. This explanation appears more reasonable than to suppose an acute inflammation by arsenic, without puking or any mode of distress. Witness the following description of *ramollissement* condensed from M. Louis.

"The stomachs presented nothing particular externally. Internally there were sometimes patches of a pale white, *but much more frequently of a blue colour. The mucous membrane in the points corresponding with these appearances, was very thin and soft, transformed, as it were into a glairy mucus.* These spots were sometimes rounded and continuous—sometimes disposed in long and narrow bands. A slight examination would have led to the idea that, in these places, the mucous coat was entirely destroyed, and frequently there was actual destruction but to a very small extent of the membrane. Various degrees of this lesion from slight extenuation to entire destruction of the mucous coat were sometimes observed in the same stomach—exhibiting the process of spontaneous perforation." *Med. Chir. Review for Jan.* 1825, *p.* 174. Since pathologists have attended more to the lesions of the digestive organs, they have found it infinitely more difficult to account for them than for disorganizations in any other part of the body. Even the most *expert* have mistaken vascularity and congestion for inflammation, and a coagulum of blood for an ulcer in the stomach from arsenic. To our present purpose, Dr. Shaw, *Anatomy, p.* 51, has the following remarkable passage.

"From the variety of appearances of inflammation, from the *black spots*, and from the ulceration and corrosion which, in the course of my dissections, I have seen in the stomachs of those who have died without any marked symptoms of affections of that viscus; and from the close resemblance which many of these have had to the stomachs of those persons who have swallowed poison, and from the similarity of appearance produced by gastritis and other diseases to those caused by poison, I have come to the conviction, that the appearance of the stomach or intestines alone, in a question of poison, is not to be depended on. In the last book which has been written on poisons, that of Orfila, the list of appearances which is given, as to be expected where poison has been taken, corresponds exactly with those which I have found in stomachs, where I was certain no deleterious matter had been taken. I am happy to think that this degree of uncertainty will prevent the anatomist from being called on to decide a question which may involve the life of a fellow creature."

Such is the opinion of this expert pathologist—such too, as far as our reading goes, is the opinion of all those who are truly learned and taught in the school of experience; but as our examiners are not unwilling to confess that they had no knowledge of morbid anatomy, they may be readily excused for a hasty assumption from such imposing appearances as they have described. Indeed so striking to them was the sudden apparition of a black spot in the stomach that, as Mr. Lloyd testified, they seemed convinced of the fact of poisoning, before any chemical experiment could have been made.

It is much to be lamented that the bowels were not opened, for if the stomach had really been inflamed by arsenic, these would no doubt have presented corresponding lesions. Dr. Male has frequently found the rectum more inflamed and abraded than the stomach itself, and Dr. Baillie, found it mortified in several cases. Mr. Brodie observes, that the lesions are greatest in the stomach and rectum. Wm. A. Lloyd testified, that on the outside, (that is of course, as far as he could see them,) the intestines appeared healthy. From all the testimony and *from the symptoms of his disease*, mark this part of the history, it may be fairly inferred that inflammation, sufficient to account for his death, did not exist in the stomach. There was no ulcer, no permanent redness, no coagulating lymph, no thickening of the coats, no extravasated blood; but one thing there was, a black spot with the villous coat as it were eroded with arsenic—an operation that cannot take place in the living stomach, however imposing it may appear to the minds of the unphysiological.

The following is the conclusion of Dr. R's. minutes, from which we have inferred that the chemical experiments were as fallacious as the appearance of the stomach.

"The contents of the stomach, about ℥xvi. and principally fluid, were thoroughly mixed by agitation and stirring, and then successive portions submitted to the following tests. A small portion was put into a clean Florence flask to which about four ounces of *common* water and a few grains of sub-carbonate of potash were added; this was submitted to the heat of a spirit lamp until boiling *commenced.* Portions of it were poured into two clean wine-glasses, to one of which a small quantity of sulphas cupri was added; this had the effect of changing the fluid, which had been of a light *hazel,* (owing to the colour of the contents of the stomach,) to a light green colour resembling that of Scheele.

"The surface of the other glass a stick of lunar caustic was applied to; the effect was an immediate *white cloudy* appearance, which soon changed into a reddish-yellow or *orange* colour, and after standing a few hours, resolved itself into a reddish-brown.

"This test was varied in the following manner. Some of the fluid prepared as above was applied to the surface of clean white paper, over which a stick of lunar caustic was drawn; the immediate effect was a line of a pale yellow colour, which, when minutely examined, presented a flocculent and uneven surface.

"The above tests being with (common) water, we subsequently employed snow-water with the same results, save that of copper which appeared of a better green.

"The lines subsequently drawn with nitras argenti were moistened with liquid amm. and the result was a deeper colour than when the ammon. was not used.

"In order to be more certain, and to compare the results of the suspected matter with that of arsen. acid, we treated the latter in the same manner as the contents of the stomach, and the effects were similar.

"The next day, the remaining contents of the stomach having been dried, half an ounce of the suspected matter was boiled with snow-water in a flask until it rose to the top of the vessel; the fluid was suffered to cool, when a stream of sulphuretted hydrogen gas was passed through it, this immediately changed the solution to a beautiful light golden-coloured liquid; after which a solution of arsenious acid was submitted to the same, and the result was precisely similar, and the gradual precipitation of a yellow matter was synchronous in each. The tests were several times repeated, and their results uniformly similar.

"We placed a small quantity of the matter suspected with black flux, between two plates of copper, and submitted them to a red heat; after suffering them to cool, a silvery white stain was very perceptible, precisely similar to that produced subsequently with the pure arsenious acid. This was repeated with similar results."

To this report we must add, that they tried to obtain the alliaceous odour as testified by Dr. H. but failed. They attempted then to metallize the supposed arsenic, but failed here also. This however, was considered as no disproof of their previous experiments, and therefore one accounted for the absence of metal by the presence of moisture, a second by their having too little heat, and a third by their using too much—all which circumstances were surely within the power of the chemist to obviate.

As to this first experiment, that is with sulp. cupri, it is not for us to decide whether it is a safe test for arsenic. Christison, probably the first authority, says decidedly that it is not, and others have adopted the same opinion. That it will detect very minute portions of arsenic is certain; but it is equally certain that it will detect and strike a green colour with other matters which are sometimes found in the stomach, and particularly if the fluid operated on should be tinctured with yellow. Now Dr. H. testified before Esq. Pleasants, that the fluid essayed with this test was the colour of brandy and water—Dr. R. in his minutes calls it a hazel—to compare colours is extremely difficult. We are not predicating any objection to this test upon the possible presence of onion sauce, having satisfied ourselves, that Dr. Paris's observation is correct—that the precipitate formed by onion juice, potash, and sulph. of copper, appears green, only because it is viewed through a yellow medium, produced by mixing potash with the vegetable juice. But, hold! the history of this objection, from its author, Dr. Neale, to this time, shows how even experienced eyes may be deceived when experimenting on the coloured contents of the stomach. This consideration, too, does not more impair the value of this test, than it does that of all others which depend merely on striking a colour and are not *pursued with consecutive agents.* Had the precipitate been an arsenite of copper, they might have rendered this probable by testing it with the nit. argenti, and the yellow fluid thus formed they might have essayed with various acids; or they could have dried the precipitate and attempted the tombac alloy, or have burned it on charcoal for the alliaceous odour. A portion of their green they might have tested with ferro-prussiate of potash, or with sulphuretted hyd. water, which they had at hand; or they might have dried the whole and retained it for the collective metallization. In fact, if the supposed green was utterly fallacious, viewed as it was through a yellow or hazel medium; it could not have remained so had they transformed it upon white paper, as directed by Dr. Paris, or had they merely applied to it a stick of lunar caustic. When Mr. J. Kerr obtained a green precipitate from the juice of onions, phosphate of soda, and sulph. of copper—one which, *mirabile dictu,* could not be distinguished from Scheele's green, by either himself or three medical friends, he showed them that it would not form the tombac alloy.* And when Dr. Paris was supposed by a number of gentlemen to have struck Scheele's green in a supposed case of poisoning, he transferred the deceptious precipitate on white paper and showed them that it was plainly sky-blue.†

Since writing the above, however, we have proven that a mere yellowishness of the fluid, at least as it was made by brandy, coffee, tea, both green and black, or by gamboge, does not render the precipitate of carbonate of copper apparently green, neither does the real yellow, produced by a cold infusion of onions and potash. When we made our former experiments, it was, as we believe, with a *decoction* of onions and phosphate of soda. This shows that mere yellowness of the medium has no such effect as Dr. Paris supposed; there must therefore have been some latent principles that eluded his chemistry, and these it is that render the liquid tests fallacious. One of these, however, the learned Dr. has mentioned—"The presence of peroxyde in the cupreous salt will also impart a green colour to the precipitate produced by an alkali." *Pharmacologia, article Arsenic.* All is darkness and disputation as it regards this agent, the sulphate of copper, and further investigation is wanting.

As to the experiment with lunar caustic, there is here an aberration that we are able to explain. The report states that there was "*a white cloudy* appearance, which soon changed into a reddish yellow or *orange*, and after standing a few hours, resolved itself into a *reddish brown.*" We procured water from the pump belonging to the house where the experiments were conducted, and having dissolved in it a very little carb. pot. and applied the silver test, the "white cloudy appearance" was made, which subsequently went through the very changes that Dr. R. mentions; that is, it soon changed to "a reddish-yellow or orange colour, and after standing a few hours, (perhaps two,) it changed into a reddish-brown," which was permanent. Here then was no arsenic. But upon adding Fowler's solution or the arsenite of potash to some of the *same water,* the real arsenite of silver was thrown down, which continued yellow in the light for at least six hours. It may be replied that the above test was tried with the fluid spread on white paper and that the colour struck was a pale yellow with a flocculent surface. It must be remembered that this was done with the same fluid as the above, and why it should afford a yellow precipitate on paper and a white in the glass is utterly incomprehensible. As to the flocculent surface upon which Dr. Paris depended so much for a clear distinction between the effects of arsenic and of an alkaline phosphate, this is somehow an incomprehensible mistake; we have frequently tried them side by side on white paper, and found them equally yellow and equally flocculent. The different changes of colour which they afterwards undergo is of more importance.

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* Eclect. Rep. VIII. p. 139.

† Paris and Fonblanque, Vol. II. p. 242, note a.

But what utterly condemns this experiment with the lunar caustic, is the fact, that it was repeated with snow-water and with the same results; that is, with "an immediate white cloudy appearance, which soon changed into a reddish yellow or orange, and after standing a few hours resolved itself into a reddish brown."

It is to be lamented that the copper and silver tests were used in the most objectionable forms. The ammoniurets are less fallacious, are equally active, and are quickly prepared.

The experiments with sulph. hyd. gas appear to have been imperfectly performed. Nothing is said of their having added an acid, without which it is doubtful whether a precipitate will form, unless the arsenic be present in larger quantity than can be presumed in this case. We have tried the experiment with one grain to the ounce, and no precipitate took place for forty-eight hours, but a few drops of nitric acid then precipitated the whole colour in one night. President Cooper says, that "the test of sulph. hyd. is ambiguous from similarity of colour in other metallic precipitates, and from impurity of the gas." —*Tracts on Med. Jurisp.* 439—and Dr. Bostock says that tart. emet. and some other bodies will produce phenomena which may be mistaken for the effects of arsenic," *Paris and Fonblanque, II.* 249. Again he says—the colour and formation of the precipitates are "so similar, that when the comparative experiment was made on the two substances, in contiguous glasses, it was difficult to discover any visible mark of distinction."—*Eclect. Repert. I.* 32. So true is this, that there now stands before me a bottle of white oxyde dissolved in water, and one of a similar solution of tart. emet.—their strength not recollected—both rendered yellow by a stream of sul. hyd. gas; there is no precipitate in either, and if there be any shade of difference, it is almost infinitessimal.* Now it is a fact, that Logan took tart. emet. in small doses without puking, for several days; and it is in sworn testimony now before me, that he took it till six hours before his death. It appears then from some of the highest authorities that even this test is fallacious; and I have fully shown that it was particularly so in this case. We are aware that Christison considers it the very best test; but then he goes entirely on the principle of metallization. He considers all the others as fallacious or useless; he looks upon this too, not as a test, but as a mere chemical means of collecting the arsenic for sublimation. This is the purport of his paper in the *Edinb. Med. and Surg. Jour. July,* 1824.

Of all the experiments, that of making the colour on copper plates, appears to be the most imposing; but Dr. Paris considers that "with whatever care this experiment is conducted, it is, *to say the least,* a clumsy and unsatisfactory test, and ought never to be relied on."—*Pharmac. Art. Arsenic.* Professor M'Nevin thinks that a shade of colour produced in metalurgy must not be depended on—*Cooper's Tracts, p.* 423,—and Dr. Bostock found that a little charcoal burned between plates of copper, left a mark so similar to that of tombac, as "to differ in degree rather than in kind."—*Ecl. Rep. I. p.* 37. This is a most important discovery, it shows how the unwary may possibly be led into error by the charcoal in the black flux.

It must be confessed that all these experiments, taken collectively, do afford some feeble presumption that arsenic was present, and had the examiners stopt here, as some more careless have done, this presumption might have been worthy of consideration. But they failed in their attempts at sublimation, and also in attaining the alliaceous odour. Now a question arises whether these failures are not sufficient to nullify all their previous experiments. We presume that most chemists would answer this question in the negative; had these experiments been more correctly and more variously performed, with consistent results; but as matters stood these negatives conspire with other facts to prove that none of the metal existed in the stomach. They leave us destitute of all *positive* proof, and greatly debilitate the *circumstantial;* therefore, since such strong suspicions arose in their minds, it is greatly to be regretted that they did not proceed further with the enquiry.

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* This hydro-sulphuretted solution of tart. emet. inclines to orange if there be more than one-eighth grain tartar to the ounce of water.

Some important leading tests were omitted, as lime water, the favourite of the German chemists; chromate of potash, as proposed by the illustrious president of South Carolina College; ioduret of starch, invented by Brugnatelli; the aqua sapphirina; the mineral cameleon. All the consecutive tests which are of the greatest importance, and which may be so variously, so easily, and so satisfactorily employed, were omitted. The stomach was not boiled, the bowels were not opened, nor their contents examined; no search was made for particles of arsenic with a microscope, though a very powerful one was within their reach; the stomach was destroyed, and no drawing was made of it, though some excellent delineators were at hand; the precipitates were thrown away; how many tests failed without notice in the minutes, like the attempt at sublimation, and the garlic odour, we are not yet informed. The tests they used were more liable to fallacy than several others omitted; and of the copper and the silver tests, the most fallacious preparations were employed.

We are not disposed to blame the examiners, they relied on Dr. Paris' Pharmacologia, here then is the reason they were so easily satisfied of the presence of arsenic. This author says that "the silver and copper tests are capable, under proper management, of furnishing striking and infallible indications; and that in most cases they will be equally conclusive, and in some even more satisfactory than the metallic reproduction on which so much stress has been laid." This is an opinion peculiar to himself, and is deeply fraught with error and homicide. He plainly represents, too, that there is no means of proving the reduced metal but that of burning it for the alliaceous odour. This, too, is a groundless error, and we know that it swayed the mind of one of the examiners; for when I urged him not to cease till they obtained the metal, he quoted Dr. Paris to prove that they had no means of identifying it. The most intelligent man on the inquest held the same opinion, derived from the same author; he also quoted the doctor's story of the deceptious appearance of the charcoal crust in the tube.

Let all these people reflect that liquid tests afford, *in the first place*, one degree of evidence only; that is, they strike a few different colours with some principles or compounds, they know not what; but, *secondly*, when they take the precipitates they formed, and extract from them a metal, they show that it was a metal which struck these colours; and finally, *in the third place*, they prove this metal to be arsenic by the proper experiments. This is an irresistible induction; the test, instead of being merely presumptive, is, in the first place, presumptive; in the second, confirmatory; in the third, decisive and convincing. Dr. Paris is so delighted with making these arsenical colours, that, while writing on the subject, he has laid down his pen to "convince himself with how little trouble, and with how much pleasure and profit, such experiments may be conducted." Vol. II. p. 186. If this be not mere childish play, it is at least the extravagance of a man transported with novelties. If such men as this learned and most excellent doctor, can be thus carried away with yellow and green, it surely cannot be expected that his pupils, youthful and ardent, will show steadiness; or that we, to whom these things are new, should not be equally dazzled with the success of our chemistry. Does not every one perceive how much room there is left for the ardent imagination of a man zealous in the pursuit, to play on these colours. *Nimium ne crede colori.* It is a pretty business, no doubt, to strike all these colours in a glass of transparent fluid, in which we know that arsenic is present; but to search for the poison in the turbid and various mixtures of the stomach is a far different thing.

It has been said that liquid tests will indicate the presence of arsenic, when the quantity is too small for metallization. This is no doubt true—they will indicate but afford no positive proof. Pray, then, is the medical jurist to accommodate his principles so far as to swear that arsenic is there, though he cannot find it, and lay the blame of not finding it on his own inability? Shall he be allowed to predicate his failure on there being too much or too little heat or moisture, circumstances entirely in his power to obviate? The physicians, in Kepler's case, accounted for the imperceptibility of the garlic smell by the presence of burning tar; that is, *if* they had not smelled the tar they would have smelled the arsenic.

The physician ought always to hold a consistent philosophical language, which does not permit him to call a green precipitate by the name of arsenic. Let him refer to the maxim of law—*de non apparentibus et non existentibus eadem est ratio*—and beware how he swears to the presence of what he cannot find. Hence the prudence of our examiners cannot be too highly commended—they swore, not to the poison itself, but to the mere indications thereof. The furnace is indeed the crucial experiment which will in some cases confirm, in others annihilate all the rest; and of so much importance does Orfila think it, that he does not allow the utter failure of all other tests to be considered a sufficient negative, but requires that the sublimation should also fail. Vol. I. p. 133.

We are by no means certain that a person may not be convicted on the presumption afforded by liquid tests; but they afford mere presumption, and as such only ought they to be brought into court. If those who are learned in law and versed in all the astucious arts of detecting wickedness, find such a concurrence of circumstances—chemical, pathological, moral, miscellaneous—as may authorize them to convict the accused, the matter stands between them and a higher tribunal. With this species of casuistry the medical jurist has nothing to do. He ought to state whether he found the metal itself or the mere indications afforded by liquid tests, and he ought never to vary his language in the slightest degree. If no metal has appeared in the glass, it is a negative argument of great weight; but if all the leading tests have been used, and these followed by consecutive agents, the effect will be to strengthen or weaken, to confirm or nullify all the other circumstantial testimony. Men have been justly or at least truly convicted by presumptive evidence—this is the business of law and not of medicine; we shall therefore conclude with an opinion contrary to that of Dr. Paris, if it is permitted us to oppose so great an authority, that the copper and silver tests do *not* afford "infallible indications," and that it is grossly negligent if not highly criminal to trust to them, when so many others may be so easily and so satisfactorily employed. Had Dr. Neale with his onion juice, and Dr. Edwards with his supposed arsenic from Mrs. D.'s stomach, both resorted to consecutive agents, the cause would have ended with satisfaction to the public, and the troublesome discussions of the subject, ever since that time, would have been thereby prevented. And here let us observe by the way, that in all Dr. Paris' chapter on arsenic in his Pharmacologia, there is not one consecutive test mentioned. Our worthy examiners were therefore left like mariners in an ocean to them unknown, the rocks and shoals of which were left unnoted in their only chart.

Let it not be supposed that we blame the examiners—they did the best they could with zeal and alacrity—no one is capable of doing more. We are merely pointing out those omissions which we should most probably have made ourselves. Among these we neglected to mention the propriety of sending the stomach with a portion of its contents to Philadelphia, to be examined by such chemists and such pathologists as are not to be expected on this side the mountains. This is practised in Europe, and it ought not to be despised by the *savans* of our American villages. If there is murder it ought to be unveiled; if on the contrary innocence is accused, the honour of families impugned, the peace of children and their posterity about to be destroyed through many generations—surely no pains ought to be spared to prevent the cruel catastrophe, with the consequent endless and wide-spreading imputation of unmerited infamy. The identifying of arsenical colours, as struck by liquid tests in coloured fluids, has deceived some experienced chemists, and it is not to be expected that the laborious village practitioner can have such knowledge of chemistry as may enable him to pronounce on this tremendous business of life and death—a business which the most experienced ought to approach with fear and trembling, with terror and dismay. If the most expert have heretofore blundered and contradicted each other, what is to be expected of us who know nothing of this matter, but what we glean, pro tempore from books of blunders, for the use of the case in hand?

Let it be observed that we have brought forward only a few of the many arguments that lie against a sole reliance upon liquid tests; and as the necessary limits of this paper have excluded some of primary importance, we intend to produce them at some future time.

The reader will be glad to learn that this woman was acquitted. Though no testimony was heard in her favour, and all the physicians swore they believed the man died of arsenic, she was promptly acquitted by the *grand jury*, twenty-three to one. No part of the evidence was committed to writing.

The above case will afford some matter of argument both for and against the supposition of poisoning, and therefore it is calculated to be variously useful. Those morose diabolical spirits who are glad to prove their neighbours yet worse than themselves, will most probably find murder in the case; but the philosophical mind, seeking only for truth, and delighting—not in the vice but in the virtue of others, will hesitate long in this painful sentence. After the most patient and candid investigation, with a full knowledge of all the circumstances, we are decidedly of opinion that the woman was incapable of this hideous crime; that she had no motive to perpetrate it; that all the evidence of poisoning is a mere shadow; that the collective circumstances on the other side of the question, are altogether irresistible. Arsenic was purchased, the man died, there were some presumptive proofs of poison in the stomach—these are mere scattered links in the chain of evidence.

This publication, it is hoped, will have its use by exciting the reflections of those who are better qualified than the author; with these humble views, therefore, and no other, he offers it to the profession "with the spirit of a man that has endeavoured well"—of one whose position and feelings are fortunately such, that he has neither interest to serve nor malice to gratify.

Case of Punctured Wound of the right side of the Chest, penetrating deep into the right Lung, in which the usual symptoms of injury of the lungs were absent, followed by Mania a Potu and Death. By Henry S. Levert M. D. House Surgeon to the Pennsylvania Hospital.—John Johnston, aged about thirty-eight, was admitted into the Pennsylvania Hospital on the 20th of September with a wound of the right side of the chest, produced with a large carving knife. The hæmorrhage was so profuse as to induce us to suppose the subclavian had been wounded; it was suppressed however with lint and compresses until the surgeon arrived. Preparations were now made to secure the subclavian with a ligature. Compression was made above the clavicle, with a key, until pulsation in the radial artery ceased. The lint and compresses were removed, and the coagula turned out: the pressure above the clavicle was relaxed gradually, until the pulsation at the wrist returned, but much to the surprise of all present, no hæmorrhage occurred. It was now thought adviseable by the surgeon, (Dr. Harris,) to postpone the operation of tying the subclavian, until a repetition of the hæmorrhage should render it imperious. Accordingly the wound was drawn together with adhesive strips, and considerable pressure made by the use of compresses and rollers, and a careful attendant placed at the patient's bed side.

9 o'clock P. M. A very slight return of the bleeding, not enough, however to create any alarm. 21*st.* Morning. No more hæmorrhage. The patient remained pretty comfortable until about 3 o'clock P. M. at which time he had a chill —was ordered now gtts. xl. tr. opii. At 5 P. M. the chill had gone off, and I found the patient labouring under mania a potu. Ordered ℞. P. opii gr. iij.; P. camp. gr. v.; q. o. h. with ℥ss. tr. hum. lup. every intermediate hour. This had little or no effect upon him. He died about 11 o'clock the same evening.

Post Mortem—22nd. Sept. External wound about three inches long, and very nearly in the same situation as the external incision for taking up the subclavian below the clavicle. The integuments being turned back, we traced the opening through the pectoralis major and minor, into the cavity of the chest. The latter muscle was divided almost entirely, a very few fibres remaining on either side. The knife entered the chest between the second and third ribs, and penetrating the upper lobe of the lung at this point, continued its direction towards the spine, dividing extensively the air-cells and minute blood-vessels. The wound in the lung was between three and four inches long, and between one and two inches in width. The external mammary was divided. The intercostal escaped. There was no injury of the subclavian or axillary artery.

Remarks.—No difficulty of breathing, no cough, no spitting of blood, or any other symptom indicating a wound of the lung existed in this case. The lung on this side, from some previous disease, was strongly adherent to the ribs, which precluded the possibility of an internal hæmorrhage, and consequently of any compression of the lung from this cause. In this manner we may account for the ease with which the patient respired. The brain exhibited no marks of disease.

Case of Severe Lacerated Wound of the Rectum and Bladder. By Charles Hall, M. D. of St. Albans, Vermont.—In the month of May, 1828, I visited Charles B. Weston, of Sheldon, an industrious and respectable farmer, between fifty and sixty years of age. He had just received a most severe laceration of the rectum and bladder, occasioned by being brought to the ground, with some degree of force, partially suspended by a slim staddle, which he had climbed, and by his weight, had bent over, while attempting to destroy a nest of young crows, situated on a large tree standing near by. In this predicament he came to the earth, holding by his hands, to the top of the small tree, his posteriors coming upon a dry beach bush, the body of which, the size of a large walking staff, being broken by the fall, passed, per anum, about ten inches into his abdomen, when his feet touching the ground, prevented its further progress. From this unpleasant positition he with some difficulty extricated himself; and on withdrawing the stub, his bladder emptied itself through the opening. He was brought to his house, where a few hours afterwards I saw him in company with Dr. Judson, his family physician. There was no external laceration, the stick having passed in the natural course about two inches, where it perforated the rectum and pierced obliquely upwards, through the coats of the bladder. We were enabled to trace its course thus far with the finger. We could detect no foreign substance in this extensive wound; though, from the appearance of the broken and uneven end of the stub, we were led to suspect that some pieces of it had been left; this eventually proved, however, not to be the case. The unhappy patient experienced the most excruciating agony, and in regard to a recovery, seemed to be in a hopeless condition. But nature, with the assistance of a few remedial agents, such as blood-letting, &c. performed a cure. For the first three or four days, his urine passed mostly through the wound; to prevent which, as well as to restore its natural course, recourse was had to the catheter. This, with the aid of other auxiliaries, soon restored the natural outlet, and the lacerated integuments gradually closed. I am principally indebted to my friend Dr. Judson for the foregoing history of the case, for I saw the patient but once. The Dr. informs me that the man has recovered his accustomed health and usefulness.

I think there is one practical illustration at least, which may be deduced from this case, that of the practicability of performing with success the operation of lithotomy through the same course. This method I have seen noticed as being preferable to the common mode; besides, it has been remarked, that when the operation has been performed in the usual way, and no stone found, it has generally proved fatal to the patient. The same objection might not hold, should there be no external incision, as would appear from the above case.

Case of Ephidrosis Olens. By George F. Lehman, M. D.—J. B. a Portuguese seaman, aged 48 years, was admitted into the Quarantine Hospital, September 8th, 1828, from Wilmington, N. C. He had suffered an attack of remittent fever since the 20th of August.

Several doses of castor oil had been administered previously to his landing, all of which had been ejected in consequence of the irritability of the stomach.

When I saw him he was very much debilitated, pulse weak and small,—tongue and lips rather dry,—no fever,—mind much depressed with an assurance of death.—He recovered in a few days, upon the use of tonics and light nutritious diet.

On the 10th, in the evening, passing my hand over his forehead, which was covered with perspiration, and inadvertently pressing it on my eyes, which pained me at the time, I perceived a strong smell of garlic. I washed my hand and applied it to his breast, and the same smell was more distinct.

I ascertained that during the passage from Wilmington to the Lazaretto ground, he had eaten freely of garlic. Sixty hours however, had elapsed since he had tasted any.

On the morning of the 11th the same scent continued, and as he was costive, I gave him Ol. ricin. ℥ss., which operated four times. He was well washed all over, and clean body and bed clothes substituted for those in use.

On the 12th, 13th, and 14th, the garlicky smell remained strong, particularly in the perspiration of the axilla. It diminished gradually, but had not entirely evaporated on the 19th,—the day of his discharge.

Sulphuric Ether in a case of Poisoning with Laudanum. By William M. Fahnestock, M. D.—August 10th, 1826, we were called to see A. L. who had taken two ounces of laudanum with the intent of terminating his existence. When we arrived we found him sinking very rapidly into a deep comatose state, still he resisted every effort to evacuate the poison. We attempted several times in vain to introduce the stomach pump, and continuing the resistance until he was quite exhausted, we were deterred from administering an emetic fearful of its insufficiency to eject the contents of the stomach, and of adding to the prostration of the system. Under these circumstances we forcibly inserted an iron spoon between the teeth, and poured nearly an half ounce of the sulphuric ether into the bowl of the spoon, which readily found its way to the pharynx, and part, perhaps into the stomach—which produced very violent strangulating sensations, and struggling with its suffocating effects, the stomach and diaphragm were thrown into action, and discharged a large quantity of the laudanum. Still dreading the sedative consequences of that which remained, we determined to repeat the dose, and succeeded in introducing a second portion nearly equal to the first, which had the happy effect of discharging the whole contents. The subsequent treatment was simply the ordinary attentions in these cases.

From the very powerful effect which the pure ether has upon the glottis, lungs, diaphragm, œsophagus and the contiguous parts, we are induced to believe that in such cases it may be resorted to with considerable confidence. The usual vegetable astringents, however, should not be neglected, as they may serve as valuable auxiliaries, and are absolutely necessary in the after treatment.

Datura Stramonium in Retention of Urine. By WILLIAM M. FAHNESTOCK, M. D.—The season is now rapidly approaching when persons of advanced age are very liable to retention of urine, from exposure to cold and dampness, occasioning enlargement of the prostate gland, and muscular contraction of the membraneous part of the urethra: and these frequently not only produce much inconvenience to the patient, but often very considerable embarrassment to the surgeon. The great sensibility of the parts, and their peculiar conformation render it very difficult to overcome the obstruction in the diseased state. Much of the obscurity in these cases however, arises from the want of a perfect knowledge of the minute anatomical structure, and an accurate acquaintance with the pathological state of the gland; and particularly the augmentation of the third lobe, which presents the chief difficulty in introducing the catheter: and which, by rashness, in pursuing the plan recommended by Desault, of pushing the catheter forcibly onward into the bladder, is frequently so extensively injured as to become the seat of permanent irritation, form a chronic enlargement, and prove an insurmountable barrier to all further efforts to restore it. Dr. Physick has very ingeniously contrived a bougie-pointed catheter, which can often be insinuated when other instruments cannot be passed; but even this is not practicable at all times.

Baffled in some inveterate cases which had sustained injury by injudicious treatment, we were led to try some relaxing medications to subdue the rigidity of the parts, and have succeeded so fully in a few cases with the stramonium, that we feel anxious to recommend it to the attention of the profession.

In the fall of 1825, we were called to see P. B. ætat. 74, who by exposure to cold and wet had been suffering some days with retention of urine arising from an enlargement of the prostate gland. A variety of applications had been made, as emollients, demulcents, fomentations, ice, &c. &c.; and great irritation had been excited by ineffectual attempts to introduce the catheter. The third lobe of the gland had been partially pierced, and become very tender: the least touch or pressure of the instrument would rupture its engorged vessels, and discharge profuse quantities of blood. The catheter was tried, but was arrested at the prostate gland; and being foiled in all our attempts with a variety of instruments, and in different positions, we ordered a large cataplasm of the leaves of the datura stramonium, and continued them three hours, after which we readily passed the catheter and drew off a large quantity of urine, mixed with a dark grumous fluid. The following day we encountered the same difficulty to the introduction of the instrument, but which yielded again in a few hours after the renewal of the stramonium. The catheter was now allowed to remain two days in the passage, but excited so much pain and irritation as to oblige us to remove it before we could subdue the disease, and were again reduced to our former dilemma; by persevering, however, with constant applications of the poultices, the disease was entirely removed and has not since returned.

Other similar cases have come under our observation, in the more advanced season, when the leaves could not be procured, under these circumstances we found a bath made of the seeds succeed admirably well. Cases attended with much pain and tenderness are very much relieved by blood-letting; and particularly by the application of leeches to the perinæum.

Might not the extract of belladonna applied daily in cases of chronic enlargement prove beneficial—or should we not expect an equally energetic operation from the nicotiana tabacum? This might be tried in cases of emergency.

Case of Poison by Stramonium. By R. E. GRIFFITH, M. D.—Charles Lambert, ætat. 3, in consequence of eating a few seeds of this deleterious plant, was affected with the whole train of symptoms, generally attributed to its ingestion. He was not seen until about five hours after he had eaten them; at which time his sensorium was much disordered: there were strong convulsions alternating with great excitement of mind; the pupils of his eyes were so much dilated as almost to obliterate the iris; pulse rapid and contracted; face and upper part of the body universally covered with a vivid erysipelatous redness, which gradually disappeared after venesection. This state of things continued for about fourteen hours, notwithstanding the activity of the remedial measures adopted. The restoration of his senses was sudden and unexpected. Three days afterwards his body became covered with an eruption resembling rubeola, except that it was more prominent; this eruption lasted about twelve hours. Several other children were seized in a similar manner from the same cause, all of whom recovered. We have noticed the above case from the singularity of the eruption, which wholly differed from that described by authors as arising from the ingestion of this poison.

Notice of Two Children whose Bodies were united anteriorly, and Lived some time after Birth. By J. Wilson Moore, M. D. (Communicated in a letter to Dr. Hays.)—The following case may afford some interest to the profession, and as such I offer it for thy disposal.

On the 21st of the 5th month, 1829, I was requested by Dr. Thomas Barker, to visit with him, in company with my father, Dr. Robert Moore, a twin monster, which had been born that morning.

On examining the children they appeared to be two perfect females, united together by the lower part of the thorax and by the parietes of the abdomen as far as the umbilicus. They were about the ordinary size of seven months children, and appeared healthy, though feeble; one in particular more so than the other; they took nourishment freely, and the nurse informed us that their ejecta passed simultaneously.

The history received was, that the mother had gone her full time, and that no uncommon circumstance occurred to her that could account for the phenomenon. The accouchement was performed by Dr. Barker, who found a natural presentation, but from the circumstance of the labour being somewhat protracted, and her pains ineffectual, excited suspicion that all was not right, and on a more careful examination, he discovered the head of another child resting on the pubis, which not being able to return, he brought into the neck of the other, and the natural pains quickly effected delivery. There was but one umbilical cord, attached to a single placenta.

The children continued to live for twenty-four hours, during which period but very little change took place in the condition of the most vigorous, though the other seemed gradually to decline until the powers of life became exhausted, and at the same instant both ceased to breathe.

The next day, in presence of Drs. R. Moore, James, Shoemaker, B. H. Coates, H. Klapp, Barker, and one or two others, I made an examination of the thoracic and abdominal contents, by making an incision from the sternum along the linea semilunaris of each child. On raising the integuments it was discovered that a thin membranous partition existed, separating the contents of the two abdomens from each other, and extending from side to side, involving in its folds the umbilical vessels, which divided at the umbilicus, and entered the liver on each side at the fissure. These glands were firmly united so as to present the appearance of one entire viscus, though a line of division existed, along which, however, the union was so firm as not to be overcome with the handle of a knife. There was a gall bladder attached to each viscus.

On opening the thorax the lungs seemed natural, and on exposing the heart, (which was contained in a single pericardium,) it was found of an oblong and flattish appearance, having two aortas and two pulmonary arteries. The auricles and ventricles were small, and their formation not as satisfactorily ascertained as could have been wished.

Figure 1. of plate III. presents a drawing of the children as they were united together; it was made by an artist of this city, and presents a correct view of their connexion.

Figure 2. gives a view of the thoracic and abdominal contents as presented

Plate 3. Vol. 5.

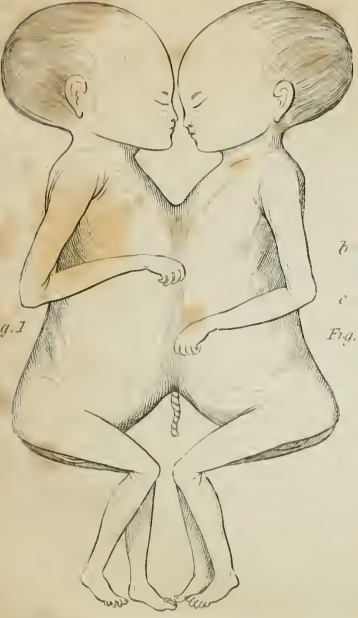

Fig. 1

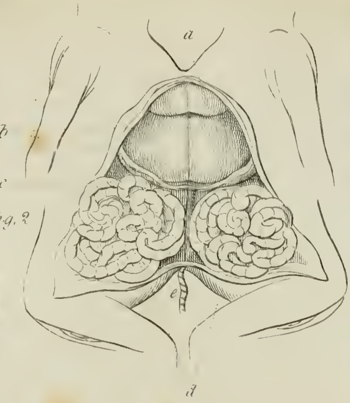

Fig. 2

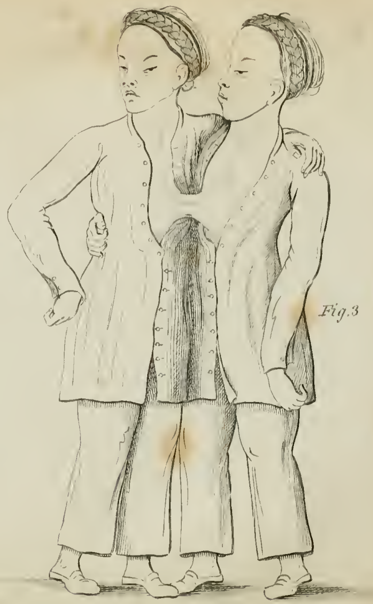

Fig. 3

Siamese Youths.

Drawn by J. Drayton.

on dissection. *a.* The two hearts united. *b.* The two livers united. *c.* The omentums drawn up. *d.* The intestines. *e.* The umbilical cord—which contained a double set of vessels.

It is to be regretted that circumstances which are unnecessary to mention, prevented our ascertaining more satisfactorily the condition of the heart.

An Account of the Siamese Twin Brothers united together from their birth. By J. C. WARREN, M. D. Professor of Anatomy and Surgery in Harvard Medical College. (With a plate.)

These boys were purchased of their mother, by Captain Coffin and Mr. Hunter, (the owners,) in a village of Siam, where they had subsisted in a state of poverty, from their birth. They were confined within certain limits by order of government, and supported themselves, principally by taking fish.

The boys are supposed to be about eighteen years old. They are of moderate stature; though not as tall as boys of that age in this country. They have the Chinese complexion and physiognomy. The forehead is more elevated and less broad than that of the Chinese, owing to malformation. They much resemble each other; yet not so much, but that on a little observation, various points of dissimilarity may be noticed.

The substance by which they are connected, is a mass two inches long at its upper edge, and about five at the lower. Its breadth from above downwards, may be four inches; and its thickness in a horizontal direction, two inches. Of course it is not a rounded cord, but thicker in the perpendicular than in the horizontal direction.—At its lower edge is perceived a single umbilicus, through which passed a single umbilical cord, to nourish both children in the fœtal state. Placing my hand on this substance, which I will denominate the cord, I was surprised to find it extremely hard. On further examination, this hardness was found to exist at the upper part of the cord only; and to be prolonged into the breast of each boy. Tracing it upwards, I found it to be constituted by a prolongation of the *ensiform cartilage of the sternum.* The breadth of this cartilage is an inch and a half; its thickness may be about the eighth of an inch. The cartilages proceeding from each sternum meet at an angle, and they seem to be connected by ligament so as to form a joint. This joint has a motion upwards and downwards, and also a lateral motion; the latter operating in such a way, that when the boys turn in either direction, the edges of the cartilage are found to open and shut. The lower face of this cartilage is concave; and under it is felt a rounded cord, which may be the remains of the umbilical cord. Besides this there is nothing remarkable felt in the connecting substance. I could distinguish no pulsating vessel.

The whole of this cord is covered by the skin. It is remarkably strong, and has no great sensibility; for they allow themselves to be pulled by a rope fastened to it, without exhibiting uneasiness. On ship board, one of them sometimes climbed on the capstain of the vessel, the other following as well as he could without complaining.

When I first visited the boys, I expected to see them pull on this cord in different directions, as their attention was attracted by different objects. I soon perceived that this did not happen. The slightest impulse of one to move in any direction, is immediately followed by the other; so that they would appear to be influenced by the same wish. This harmony in their movements is not the result of a volition, excited at the same moment. It is a habit formed by necessity. At an early period of life it is probable they sometimes differed. At present this is so rarely the case that the gentlemen who brought them, have noticed only a single instance. Having been accustomed to use the cold bath; one of them wished it when the weather was cool; to which the other objected. They were soon reconciled by the interference of the commander of the ship. They never hold a consultation as to their movements. In truth, I have rarely seen them speak to each other, although they converse constantly with a Siamese lad who is their companion. They always face in one direction; standing nearly side by side, and are not able, without inconvenience, to face in the opposite direction;

so that one is always at the right, the other at the left. Although not placed exactly in a parallel line, they are able to leap with surprising activity. On some occasions, a gentleman, in sport, pursued them round the ship, when they came suddenly to the hatchway, which had been inadvertently left open. The least check would have thrown them down the hatchway, and probably killed one or both; but they leaped over it without difficulty.

They are quite cheerful; appear intelligent; attending to whatever is presented to them, and readily acknowledging any civility.—As a proof of their intelligence, it is stated, that in a few days they learned to play at drafts well enough to become antagonists of those who had long been versed in the game. They sometimes play with each other; and it has been noticed, that when one made a bad move, the other would sometimes correct it, and propose it should be taken back. They differ in intellectual vigour. The perceptions of one are more acute than those of the other; and there is a corresponding coincidence in moral qualities. He who appears most intelligent, is somewhat irritable in temper, while the disposition of the other is extremely mild.

The connexion between these boys might present an opportunity for some interesting observations, in regard to physiology and pathology. There is, no doubt, a net-work of blood-vessels, lymphatics and some minute nerves passing from one to the other. How far these parts are capable of transmitting the action of medicines, and of diseases, and especially of what particular medicines, and what diseases, are points well worthy of investigation. Captain Coffin informed me, that they had never taken medicine since they had been under his care. Once they were ill from eating too heartily, but were relieved by the efforts of nature. He thinks that any indisposition of one extends to the other, that they are inclined to sleep at the same time; eat about the same quantity, and perform other acts with great similarity. Both he and Mr. Hunter, the gentleman who united with him in bringing them here, are of opinion that touching one of them when they are asleep, awakens both. When they are awake, an impulse given to one, does not in the least affect the other. There is evidently no impression received by him who is not touched. Of course the opinion just mentioned, is undoubtedly erroneous. The slightest movement of one is so speedily perceived by the other, as to deceive those who have not observed closely.—There is no part of them, which has a common perception, excepting the middle of the connecting cord and a space near it. When a pointed instrument is applied precisely in the middle of the cord, it is felt by both; and also for about an inch on each side; beyond which the impression is limited to the individual of the side touched.

As to the influence of medicines, taken by one, on the body of the other, it would, I suppose, be inconsiderable; since the vascular and nervous communications must be very limited. The same remark may be applied to most diseases. I do suppose that a febrile affection, slight in degree, would extend from the one to the other. How it would be with a continued fever, appears to me uncertain. But such diseases as are communicable through the absorbent vessels, or capillary blood-vessels, would readily pass from one system to the other; as for example, the morbid poisons, syphilis, cow-pox, small-pox, &c.

Those who have resided with them say, that the alvine and urinary evacuations take place at about the same intervals in both, though not at the same time. In the function of the circulation, there is a more remarkable uniformity in the two bodies. The pulsations of the hearts of both coincide exactly, under ordinary circumstances. I counted seventy-three pulsations in a minute while they were sitting; counting first in one boy, then in the other. I then placed my fingers on an arm of each boy, and found the pulsations take place exactly together. One of them stooping suddenly to look at my watch, his pulse became much quicker than that of the other: but after he had returned to his former posture, in about a quarter of a minute, his pulse was precisely like that of the other boy. This happened repeatedly. Their respirations are, of consequence, simultaneous.

This harmony of action in primary functions, shows a reciprocal influence, which may lead to curious observations and important deductions. Observations to be useful, would require much time and great accuracy.

Among the curious questions which have arisen in regard to these individuals, one has been made as to the moral identity of the two persons. There is no reason to doubt that the intellectual operations of the two are as perfectly distinct, as those of any two individuals, who might be accidentally confined together. Whether similarity of education and identity of position, as to external objects have inspired them with any extraordinary sameness of mental action, I am unable to say; any further, at least, than that they seem to agree, in their habits and tastes.

Another question which has presented itself in relation to them, is, whether it would be possible to separate them from each other with safety. There seems to me nothing in the connecting medium which would render such an operation necessarily fatal. It is not improbable that the peritoneum is continuous from the abdomen of one to that of the other. The division of this membrane would involve some danger though not very considerable. The attempt to separate them, does not however, appear to me to be authorized under existing circumstances. Surgeons are justified in putting the life of an individual at risk, when it becomes necessary in order to relieve him of a menacing disease; but it would not be proper to hazard life in order to procure some convenience, however desirable this might be. When the minds of these boys have been sufficiently cultivated to enable them to understand the nature and dangers of an operation; and the advantages they would derive from it, the subject might be presented to them; and if, with a full knowledge of the consequences, they desired and demanded the separation to be effected, it might be proper to undertake it. Should one die before the other, they should be cut apart immediately. The success of the operation would, of course, be affected by the nature of the mortal disease, and its influenee on the constitution of the survivor.

A union of the bodies of twins by various parts, is not an unusual occurrence. The collections of anatomists present many such objects. Ambrose Paré has depicted for the entertainment of his readers, instances of union by the back, belly and forehead. The last occurred in two girls who lived to the age of ten years, when one of them dying a separation was made; the wound of the living girl assumed a bad character, and soon proved fatal. The Hungarian sisters, who lived about a century since, were united by the back; had one passage from the intestines, and one from the urinary organs. They died when they were twenty-two years of age. In the Philosophical Transactions and various other works, a multitude of similar monstrosities are recorded; most of them born dead, or dying soon after birth.

The Siamese boys, present, I believe, the most remarkable case of this *lusus naturæ*, which has yet been known, taking into view the perfection and distinctness of their organization, and the length of time they have lived. Their health is at present good; but it is probable that the change of their simple habits of living, for the luxuries they now obtain, together with the confinement their situation necessarily involves, will bring their lives to a close within a few years.

Ligature of the Carotid for Anastomosing Aneurism in a Child three months old.—By a letter from a medical friend in New York, we are informed that Professor Mott has recently taken up the carotid artery in a child *three months* old, for the removal of a tremendous anastomosing aneurism, extending across the nose from canthus to canthus, covering the nose to its extremity, and also reaching upon the forehead. The child had recovered from this operation when the letter was written, and was in a few days to have had the carotid of the other side taken up. This has most probably been done, and we hope to give a detailed account of the case in our next number.

Statement of Deaths, with the Diseases and Ages, in the City and Liberties of Philadelphia, from the 1*st of January*, 1827, *to the* 1*st of January*, 1828.

DISEASES.	Under 1 year.	From 1 to 2.	From 2 to 5.	From 5 to 10.	From 10 to 15.	From 15 to 20.	From 20 to 30.	From 30 to 40.	From 40 to 50.	From 50 to 60.	From 60 to 70.	From 70 to 80.	From 80 to 90.	From 90 to 100.	From 100 to 110.	TOTALS.
Atrophy - - - -	17	8	3	1	0	0	0	0	3	4	1	1	1	0	0	39
Abscess - - - -	2	0	1	2	0	3	2	3	3	0	3	2	0	0	0	21
Asthma - - - -	0	0	0	1	0	0	0	1	1	2	3	5	1	1	0	15
Apoplexy - - -	0	0	0	1	1	0	3	8	11	11	7	3	1	1	0	47
Aphthæ - - - -	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Aneurism - - -	0	0	0	0	0	0	1	0	1	2	0	1	0	0	0	5
Burns - - - -	3	2	6	1	0	2	2	2	3	1	1	0	0	0	0	23
Bronchitis - - -	3	1	1	0	0	0	2	0	3	0	0	1	0	0	0	11
Consumption - - -	10	3	18	8	6	34	129	153	87	39	25	10	1	0	0	523
Convulsions - - -	177	30	18	12	1	1	2	12	11	1	2	1	0	0	0	268
Casualties - - -	3	2	1	2	3	2	2	5	1	0	0	0	1	0	0	22
Catarrh - - - -	49	14	5	2	3	1	0	2	1	2	0	2	1	2	0	84
Colic - - - -	2	1	0	0	0	1	3	2	0	1	1	1	0	0	0	12
Cachexy - - -	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Childbed - - -	0	0	0	0	0	1	4	3	0	0	0	0	0	0	0	8
Cancer - - - -	0	0	0	0	0	0	0	3	7	10	3	0	1	0	0	24
Concussion - - -	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Caries - - - -	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2
Contusion - - -	1	0	1	0	0	0	1	0	0	1	0	0	0	0	0	4
Cholera - - - -	160	61	8	0	0	1	1	5	1	1	1	0	0	0	0	239
Coup de soleil - -	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Debility - - - -	105	18	11	5	0	0	4	10	11	9	11	13	9	0	1	207
Dropsy - - - -	0	1	3	3	2	4	12	17	13	15	5	6	2	0	0	83
of the Breast -	0	0	0	1	0	0	4	3	5	8	2	2	3	1	0	29
in the Head - -	27	35	25	18	1	0	0	0	1	0	0	0	0	0	0	107
Dysentery - - -	14	8	3	5	1	0	3	7	6	6	3	1	1	0	0	58
Diarrhœa - - -	29	5	1	0	0	1	4	11	6	9	9	9	2	1	0	87
Drunkenness - - -	0	0	0	0	0	2	16	15	11	5	3	1	0	0	0	53
Death by opium - -	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Dyspepsia - - -	0	0	0	0	0	1	1	2	0	1	1	0	1	0	0	7
Decay - - - -	3	0	0	0	1	0	0	3	3	2	7	2	0	0	0	21
Diseased spine - -	0	0	0	0	2	0	1	1	0	0	0	0	0	0	0	4
Disease of the heart -	4	0	0	1	2	0	2	0	1	1	0	1	0	0	0	12
Drinking cold water -	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
Drowned - - -	0	0	0	6	2	4	9	13	9	3	0	0	0	0	0	46
Disease of the hip joint -	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Eruptions - - -	6	2	0	0	0	0	0	1	1	0	0	0	0	0	0	10
Erysipelas - - -	2	0	1	0	0	0	0	1	0	1	1	0	0	0	0	6
Epilepsy - - -	2	0	1	0	0	2	1	1	1	1	1	0	0	0	0	10
Fractures - - -	0	0	0	0	0	0	1	2	1	0	0	1	0	0	0	5
Found Dead - - -	5	0	0	2	0	0	2	6	7	1	0	0	0	0	0	23
Fungus hæmatodes -	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Fever - - - -	13	6	5	14	6	7	17	18	6	10	4	5	2	0	0	113
Bilious - - -	1	1	1	3	1	6	20	10	6	2	2	1	0	0	0	54
Remittent - -	1	5	5	5	4	5	19	12	9	6	4	4	0	0	0	79
Typhus - - -	0	0	1	3	3	10	22	19	15	12	4	3	0	0	0	92
Intermittent - -	1	1	1	2	0	1	2	1	2	2	1	0	0	0	0	14
Inflammatory - -	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Nervous - - -	0	1	0	0	3	2	1	3	1	1	0	0	0	0	0	12
Hectic - - -	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	4
Scarlet - - -	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Puerperal - -	0	0	0	0	0	2	2	5	1	0	0	0	0	0	0	10
Gout - - - -	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	4
Carried over - -	647	206	120	100	43	94	296	363	255	171	107	76	28	6	1	2513

DISEASES.	Under 1 year.	From 1 to 2.	From 2 to 5.	From 5 to 10.	From 10 to 15.	From 15 to 20.	From 20 to 30.	From 30 to 40.	From 40 to 50.	From 50 to 60.	From 60 to 70.	From 70 to 80.	From 80 to 90.	From 90 to 100.	From 100 to 110.	TOTALS.
Brought over - -	647	206	120	100	43	94	296	363	255	171	107	76	28	6	1	2513
Gangrene - - -	0	1	7	1	1	0	0	1	0	0	0	0	0	0	0	11
Hysteritis - - -	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Hives - - - -	24	17	18	3	1	1	0	0	0	0	0	0	0	0	0	64
Hooping cough - -	28	11	9	3	0	0	0	0	0	0	0	0	0	0	0	51
Hæmorrhage - - -	2	0	0	0	1	3	8	7	5	2	1	0	0	0	0	29
Hernia - - - -	0	1	0	0	0	0	1	0	0	0	1	1	1	0	0	5
Insolation - - -	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Injured spine - - -	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Inflammation of the Lungs	43	10	11	2	1	5	18	20	8	13	7	4	2	0	0	144
Bowels - -	17	4	5	1	7	9	8	9	2	5	1	1	0	0	0	69
Brain - - -	8	5	8	3	5	5	7	8	3	0	2	1	0	0	0	55
Breast - - -	4	2	3	0	0	0	0	1	0	1	1	2	0	0	0	14
Stomach - -	2	2	3	0	0	4	6	7	3	2	1	0	0	0	0	30
Liver - - -	2	2	2	0	0	0	6	15	7	3	4	0	0	0	0	41
Spleen - - -	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Peritoneum - -	0	0	1	2	0	1	1	1	0	1	0	0	0	0	0	7
Heart - - -	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
Bladder - -	0	0	0	0	0	0	1	0	0	0	1	2	0	0	0	4
Prostate Gland -	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2
Insanity - - - -	0	0	0	0	0	0	1	1	2	2	0	0	0	0	0	6
Jaundice - - -	2	0	1	0	1	0	1	1	1	0	1	0	0	0	0	8
Locked jaw - - -	1	0	0	0	3	0	4	0	2	0	0	0	0	0	0	10
Laudanum to excess -	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	3
Mania a potu - - -	0	0	0	0	0	0	9	37	12	6	5	0	0	0	0	69
Measles - - - -	1	3	4	1	0	0	0	0	0	0	0	0	0	0	0	9
Mortification - - -	1	0	1	1	0	0	3	4	0	2	1	3	0	1	0	17
Old age - - - -	0	0	0	0	0	0	0	0	0	0	1	24	33	15	3	76
Osteo sarcoma - -	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Palsy - - - -	0	0	0	0	2	0	1	4	4	4	4	9	3	0	0	31
Pleurisy - - - -	0	0	0	0	0	0	1	3	2	4	0	2	0	0	0	12
Phlegmasia dolens - -	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Perished of cold - -	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Rheumatism - - -	0	0	0	1	0	0	1	1	0	0	1	0	0	0	0	4
Rickets - - - -	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Still-born - - -	286	0	0	0	0	0	0	0	0	0	0	0	0	0	0	286
Súdden - - - -	7	2	0	0	0	0	6	17	20	7	5	3	0	0	0	67
Small-pox - - -	12	4	13	5	3	1	35	14	9	1	3	0	0	0	0	100
Syphilis - - - -	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	3
Suicide - - - -	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	4
Sore throat - - -	1	0	1	3	1	0	1	0	2	0	0	0	0	0	0	9
Spasms - - - -	2	0	0	0	0	0	1	1	0	1	0	0	0	0	0	5
Scrofula - - - -	5	4	3	1	2	3	2	0	0	2	0	0	0	0	0	22
Stone - - - -	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	3
Spina bifida - - -	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
Stricture - - -	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Tumours - - -	0	0	0	0	0	0	1	0	3	3	3	0	0	0	0	10
Tympanitis - - -	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	3
Thrush - - - -	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Teething - - -	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Ulcers - - - -	0	0	0	0	1	0	4	2	1	1	1	1	0	0	0	11
Violence - - -	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Worms - - - -	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	4
Wounds - - - -	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
Unknown - - -	35	14	3	2	1	1	13	13	16	7	5	1	0	0	0	111
	1136	293	215	131	74	128	444	515	364	264	157	131	67	22	4	3945

Of the foregoing there were Males of 20 years and upwards, 1152; 1026 under 20 years; 845 Females of 20 years and upwards; 922 under 20 years.

There were 443 returns received at the Health Office of persons who died in the Alms-house of the City during the year; and 757 People of Colour are included in the statement of interments.

Deaths in each month of the within period.

	Adults.	Children.	Total.
January - - - - -	176	137	313
February - - - - -	138	149	287
March - - - - - -	156	149	305
April - - - - - -	130	145	275
May - - - - - -	178	116	294
June - - - - - -	116	176	292
July - - - - - -	148	267	415
August - - - - -	218	242	450
September - - - - -	145	142	287
October - - - - -	216	149	365
November - - - - -	203	144	347
December - - - -	172	133	305
	1996	1949	3945

Agreeably to returns made and collected from 127 Practitioners of Midwifery, there have been born in the City and Liberties, from the 1st of January, 1827, to the 1st of January, 1828, 3581 Male, and 3452 Female children; making the total number of births, 7033; leaving a difference between the births and interments for the year, of 3088.

By order of the Board of Health,

JOSEPH PRYOR, *Clerk.*

Health Office, Philadelphia, January 1, 1828.

Observations upon the Bill of Mortality for 1827.—In comparing the bill of mortality for 1827, with that of the preceding year, we find the total amount of deaths less by 306, still-born included. The chief diminution appears under the head of fevers; the deaths from which in 1826 were 421, whereas the amount from this source in the present year is only 219. A less number of deaths likewise appears under the heads of Consumption, Bowel complaints, Dropsies, Croup, Inflammations, Measles, and some others. Small-pox is the principal disease which presents an increased mortality; which increase, however, is more than overbalanced by the diminution in the deaths from measles. The mortality of adults, or those of 20 years and upwards, is nearly equal to the amount of deaths under that period.

The greatest mortality was in August, when the number of deaths amounted to 450; the smallest in April, when it was only 275. The other months stand as follows, beginning with the highest: viz. July, October, November, January, December, March, May, June, February, September.

Leaving the still-born out of the estimate, the births exceed the deaths 3374, being as 7200 to 3659.

Statement of Deaths, with the Diseases and Ages, in the City and Liberties of Philadelphia, from the 1st of January, 1828, to the 1st of January, 1829.

DISEASES.	Under 1 year.	From 1 to 2.	From 2 to 5.	From 5 to 10.	From 10 to 15.	From 15 to 20.	From 20 to 30.	From 30 to 40.	From 40 to 50.	From 50 to 60.	From 60 to 70.	From 70 to 80.	From 80 to 90.	From 90 to 100.	From 100 to 110.	From 110 to 120.	TOTALS.
Aphthæa	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	5
Atrophy	16	5	7	1	1	1	0	0	2	1	1	2	1	0	0	0	38
Abscess	1	1	0	0	1	3	2	7	3	2	1	0	1	0	0	0	22
Apoplexy	2	0	0	0	0	2	1	8	13	8	8	3	1	0	0	0	46
Angina pectoris	0	0	0	0	0	0	1	1	1	0	0	2	0	0	0	0	5
Asthma	0	0	0	0	1	0	0	1	0	4	4	1	2	0	0	0	13
Aneurism	0	0	0	0	0	1	2	2	1	0	0	0	1	0	0	0	7
Burns	0	2	7	6	1	0	2	2	0	1	0	0	0	0	0	0	21
Bronchitis	9	6	2	0	0	1	0	0	3	1	1	3	1	0	0	0	27
Consumption	17	10	11	15	9	33	164	133	92	46	31	18	2	0	0	0	581
Convulsions	169	56	49	17	2	2	6	4	5	1	3	0	1	0	0	0	315
Catarrh	32	8	7	1	0	0	0	0	0	1	0	0	0	0	0	0	49
Casualties	3	0	0	0	2	2	4	3	3	0	2	0	0	0	0	0	19
Contusion	0	0	0	0	2	0	0	1	1	1	1	0	0	0	0	0	6
Cholera	180	92	10	2	1	0	1	3	1	1	0	0	0	0	0	0	291
Cancer	0	0	0	1	0	1	1	2	3	4	6	0	0	0	0	0	18
Compression of the Brain	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
Caries	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Chorea Sancti Viti	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Colic	2	0	0	0	0	0	0	1	2	0	1	0	0	0	0	0	6
Cachexy	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
Coup de soleil	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
Childbed	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	3
Debility	131	33	26	5	5	1	7	6	9	10	16	30	7	0	0	0	286
Decay	1	0	0	1	0	1	2	2	2	1	2	3	0	1	0	0	16
Dropsy	2	2	3	2	1	3	11	15	22	17	4	10	5	0	0	0	97
of the Breast	1	0	1	0	0	1	11	7	10	7	7	1	0	0	0	0	46
in the Head	45	24	29	10	0	0	2	0	0	0	0	0	0	0	0	0	110
Dysentery	14	6	6	3	0	1	5	2	4	1	3	3	2	0	0	0	50
Diarrhœa	29	17	10	2	0	0	2	4	5	5	6	6	3	0	0	0	89
Drowned	0	0	1	5	3	2	9	12	16	4	1	0	0	0	0	0	53
Drunkenness	0	0	0	0	0	0	2	11	12	1	4	0	0	0	0	0	30
Dyspepsia	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	3
Drinking cold water	0	0	0	0	0	0	2	1	2	0	0	0	0	0	0	0	5
Diabetes	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2
Disease of the Heart	6	0	0	0	0	2	5	0	5	1	1	0	0	0	0	0	20
of the Hip-joint	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
of the Spine	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Epilepsy	1	0	1	1	2	1	1	4	3	1	0	2	0	0	0	0	17
Eruptions	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Erysipelas	1	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	4
Fracture	0	1	0	0	0	0	0	2	2	1	1	1	0	0	0	0	9
Found dead	13	0	0	0	0	0	2	6	5	3	0	0	0	0	1	0	29
Fungus hæmatodes	0	0	0	0	0	1	0	0	0	0	2	1	0	0	0	0	4
Fever	8	6	9	7	6	8	22	21	11	11	7	0	2	0	0	0	118
Bilious	3	4	4	7	5	5	27	20	9	5	9	6	1	0	0	0	105
Typhus	0	0	0	2	4	4	11	10	5	5	4	0	1	0	0	0	46
Intermittent	4	2	2	2	0	0	4	2	2	1	0	0	2	0	0	0	21
Remittent	7	5	6	1	3	5	20	9	5	2	2	1	2	0	0	0	68
Inflammatory	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
Hectic	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2
Puerperal	0	0	0	0	0	0	5	2	0	0	0	0	0	0	0	0	7
Nervous	0	0	0	1	0	0	6	1	1	2	2	0	0	0	0	0	13
Carried over	705	282	192	96	51	82	343	312	264	150	132	94	36	1	1	0	2741

DISEASES.	Under 1 year.	From 1 to 2.	From 2 to 5.	From 5 to 10.	From 10 to 15.	From 15 to 20.	From 20 to 30.	From 30 to 40.	From 40 to 50.	From 50 to 60.	From 60 to 70.	From 70 to 80.	From 80 to 90.	From 90 to 100.	From 100 to 110.	From 110 to 120.	TOTALS.
Brought over - -	705	282	192	96	51	82	343	312	264	150	132	94	36	1	1	0	2741
Gout - - - -	0	0	0	0	0	0	0	0	1	1	2	2	0	0	0	0	6
Gangrene - - -	1	1	6	1	1	0	0	0	1	0	0	0	0	0	0	0	11
Gun-shot wound -	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2
Hernia - - -	1	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	4
Hives - - -	28	11	25	7	0	0	0	0	0	0	0	0	0	0	0	0	71
Hooping cough - -	29	13	11	4	0	0	0	0	0	0	0	0	0	0	0	0	57
Hæmorrhage - -	0	0	0	0	0	1	8	9	3	1	1	0	0	0	0	0	23
Insanity - - -	0	0	0	0	0	1	3	8	1	1	3	0	0	0	0	0	17
Inflammation of the Breast	7	1	0	1	0	0	0	1	0	0	1	1	1	0	0	0	13
Lungs - -	37	8	16	8	3	3	15	17	6	7	5	4	1	0	0	0	130
Stomach - -	7	2	1	1	0	1	5	3	7	2	3	4	0	0	0	0	36
Brain - -	6	6	5	7	3	5	12	10	6	3	3	2	0	0	0	0	68
Bowels - -	24	8	6	3	5	3	7	10	8	7	4	2	1	0	0	0	88
Liver - -	1	2	5	1	1	1	8	10	4	2	1	1	2	0	0	0	39
Peritoneum -	0	0	1	1	0	2	5	3	1	0	3	1	2	0	0	0	19
Kidneys - -	0	0	0	0	0	0	0	0	0	2	1	1	0	0	0	0	4
Bladder - -	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Heart - -	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
Knee-joint -	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Uterus - -	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Jaundice - - -	0	1	0	0	0	0	1	2	0	0	1	2	2	0	0	0	11
Locked jaw - -	1	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	4
Laudanum to excess -	0	0	1	0	0	0	4	1	3	0	0	0	0	0	0	0	9
Measles - - -	12	21	21	3	0	0	1	0	0	0	0	0	0	0	0	0	58
Mortification - -	2	1	0	2	0	0	0	3	0	1	1	2	0	0	0	0	12
Mania a potu - -	0	0	0	0	0	0	18	29	24	8	3	0	0	0	0	0	82
Old Age - - -	0	0	0	0	0	0	0	0	0	0	2	14	36	8	1	3	64
Palsy - - - -	0	0	0	0	0	0	2	6	2	6	8	13	4	0	0	0	41
Pleurisy - - -	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	5
Phlegmasia dolens -	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Rheumatism - -	0	0	0	0	1	0	0	1	1	1	1	1	1	1	0	0	8
Still-born - - -	321	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	321
Sudden - - -	4	1	1	1	0	1	3	12	16	2	10	2	1	1	0	0	55
Suffocation - -	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2
Suicide - - -	0	0	0	0	0	0	0	1	4	1	1	0	0	0	0	0	7
Stone - - - -	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
Scrofula - - -	6	1	2	1	1	1	1	0	1	0	0	0	0	0	0	0	14
Small-pox - - -	17	3	18	5	1	7	38	8	5	2	0	2	0	1	0	0	107
Sore throat - -	3	2	1	1	0	0	1	3	3	1	1	0	0	0	0	0	16
Spina bifida - -	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	3
Stricture - - -	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Syphilis - - -	3	1	0	0	2	0	1	0	0	0	0	0	0	0	0	0	7
Tubercles of the brain	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Tumours - - -	0	0	0	1	0	1	1	2	0	5	1	0	0	0	0	0	11
Teething - - -	1	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Ulcers - - -	1	1	0	2	0	1	4	5	3	2	0	0	0	0	0	0	19
Violence - - -	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	3
Varioloid - - -	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Vomiting - - -	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Worms - - -	0	1	1	1	0	1	0	0	1	0	0	0	0	0	0	0	4
Wounds - - -	0	0	0	0	0	0	2	1	1	0	0	0	0	0	0	0	4
Unknown - - -	26	22	1	1	0	1	6	5	4	0	2	0	3	0	0	0	71
	1254	395	329	148	70	113	498	459	372	206	191	150	90	12	2	3	4292

Of the foregoing there were Males of 20 years and upwards, 1166; 1204 under 20 years; 855 Females of 20 years and upwards; and 1067 under 20 years.

There were 356 returns received at the Health Office of persons who died in the Alms-house of the City during the year; and 706 People of Colour are included in the statement of interments.

Deaths in each month of the within period.

	Adults.	Children.	Total.
January - - - - -	200	161	361
February - - - - -	143	129	272
March - - - - - -	141	151	292
April - - - - - -	185	133	318
May - - - - - -	123	129	252
June - - - - - -	140	203	343
July - - - - - -	184	385	569
August - - - - - -	168	247	415
September - - - - -	253	228	481
October - - - - -	195	195	390
November - - - - -	139	160	299
December - - - - -	144	156	300
	2015	2277	4292

Agreeably to returns made to the Health Office, and collected from 137 Practitioners of Midwifery, there have been born in the City and Liberties, from the 1st of January, 1828, to the 31st of December, 1828, 3694 Male, and 3506 Female children; making the total number of births, 7200; leaving a difference between the births and interments of 2908.

By order of the Board of Health,

JOSEPH PRYOR, *Clerk.*

Health Office, Philadelphia, January 1, 1829.

Observations upon the Bill of Mortality for 1828.—This bill shows an increase in the mortality of 1828 over that of the preceding year, amounting to 347, which sum is chiefly made up by the greater number of deaths recorded under the heads of Consumption, Convulsions, Bowel complaints, Dropsies, Inflammations, Measles, and Small-pox. The mortality of children under 10, considerably exceeded the number of deaths which occurred at all other periods of life. The month in which the greatest mortality occurred was July, during which there died 184 adults, and 385 children, in all 569; that which offers the smallest amount of deaths is May, in which month there died 123 adults, and 129 children, in all 252. The other months, arranged according to their respective degrees of mortality, beginning with the highest, would stand in the following order: viz. September, August, October, January, June, April, December, November, March, February.

The number of births registered was 7200, which amount is 3229 greater than that of the mortality.

Mercury detected in Swaim's Panacea.—Extract of a letter from Richard Emmons, M. D. of Great Crossing, Kentucky, to the Editors. "I notice in your August No. that mercury has been detected in Swaim's Panacea. This is no new intelligence to me. A Mrs. B. a neighbour of mine, took several bottles of the panacea for a scrofulous ulcer of the throat. The remedy produced no abatement of the disease. After using up one of the bottles, small globules of quicksilver were seen rolling over the bottom of it.

"It was very warm weather when the quicksilver was discovered precipitated at the bottom of the bottle, hence I have no doubt but that the panacea had experienced at least a partial fermentation. The patient, Mrs. B., was compelled to scald one of her bottles in order to preserve it."

Solution of the White Oxide of Arsenic and Tartar Emetic in Herpes, &c.—Dr. Richard Emmons, of Kentucky, writes to us, that he has used a saturated solution of the white oxide of arsenic, with tartar emetic, half an ounce of the former to ten grains of the latter, with complete success in a few cases of herpes; and he suggests its use in obstinate cutaneous diseases. The remedy should be used with caution. Dr. E. does not inform us how his arsenical solution is made.

Bark of the Root of the Lynn or Wahoo, (Ulmus alata, Mich.) as a Poultice.—Dr. W. F. Luckie, of Clinton, Mississippi, writes to us that he has for some eight or ten years been in the habit of using this application to all the varieties of phlegmonous inflammation, with remarkable success. In cases of erysipelas, burns, bruises, contusions, and wounds of various descriptions, he has used it to the exclusion nearly of all other local applications, with great advantage. The way to prepare the poultice is to take the root of young trees, and after removing the cuticle from the bark, to scrape off the bark, and add a sufficiency of cold water to make it into a soft uniform pulp, which should be spread on cloth at least an inch thick, and sufficiently large to cover the whole of the inflamed part. The poultice should be renewed three or four times a day.

NECROLOGY.

Died, May 18, 1829, at his residence in Dumfries, Va. near the banks of the Potowmac river, John Spence, M. D. aged sixty-three years, one of the Collaborators of the American Journal of the Medical Sciences.

This gentleman, for nearly forty years, enjoyed in the section of Virginia in which he lived, the highest reputation as a judicious and successful practitioner; and has contributed in no small degree to the present scientific state of medicine in this country, by presenting the example of an indefatigable and accomplished student, almost to the close of his existence; and by his original contributions to the pages of medical journals.

Upon the first introduction of the vaccine disease into the United States, his attention was closely bestowed upon it, and in a short time he became satisfied of its really possessing those prophylactic powers, attributed to it by its renowned discoverer. His zeal in the cause, his general intelligence and polish as a scholar, and his established reputation in medicine, inspired the public with such confidence in his judgment, as soon enabled him to extend the benefit of his convictions not only throughout his own region, but to the more distant points of Virginia and of the adjoining states. He was on this momentous occasion, while public opinion yet remained undetermined, a luminary in the path of science; and though he reflected a light derived from a more lustrous source, yet he contributed in no small degree to its extension. The journals and publications of that day, attest sufficiently the spirit of apostleship with which he was inspired by the new doctrine, and his efficiency in the cause. He remained to the time of his death a devoted believer in the same cause, and from repeated and varied experiments, had satisfied himself so fully on the subject, that the slightest doubt of genuine vaccina being a protector from variola, was to him a heresy in medicine of the most monstrous and unpardonable kind.

His next considerable contribution to his profession, was a report of a trial in some cases of pulmonary hæmorrhage, of the remedial efficacy of digitalis. His experiments were attended with success, and assisted much the reputation of that article while its day lasted. He continued to use digitalis while he lived, and was much prepossessed in favour of it, in pulmonary affections, and in dropsies, also in some cases of chronic catarrh. He understood thoroughly its powers, and knew well how to select what was active from what was inert. He thought that it had got into an unmerited disuse, and that practitioners had been disappointed in its efficiency, in consequence of their inattention to the proper rules of curing and keeping it. Himself a victim to ascites and anasarca, he succeeded repeatedly in removing the water by its use.

In the year 1806, he carried on an interesting correspondence with the late distinguished Dr. Benjamin Rush, on the successful treatment of a case of puerperal mania. This correspondence is published in the Medical Museum of Philadelphia.

Last year he presented a valuable paper to this journal, on the efficacy of a sea voyage in arresting pulmonary consumption in his own person, when he was a young man. Having given this brief and imperfect sketch of his scientific labours, which are generally to be found in the Medical Museum of Dr. Coxe, and in Miller's Medical Repository of New York, we may proceed to say something of his personal history.

Dr. Spence was a native of Scotland, and spent five years in the University of Edinburgh, when its reputation was illustrated by the lectures of Cullen, Black, and Munro. Being fully qualified to graduate, he was prevented by symptoms of pulmonary consumption, and was advised by his preceptors to take immediately a long sea voyage. The res angustæ domi, which have been so efficient in the nurture of genius, prevailing in his domestic circle, prevented him from adopting a course more gratifying to his feelings, and he was induced to accept, in the year 1788, the offer of a private tutorship in a family residing in Dumfries, Virginia. At the same moment he had an offer of a promising professional appointment in St. Petersburgh, which has since turned out very advantageous in reputation and emolument to its occupant, but the alarming situation of his health induced him to prefer the more genial climate of the United States. His accomplishments as a Latin and Greek scholar made him a very acceptable member, as tutor, in a numerous family, the head of which felt the full value of bestowing a good education on his children.

The voyage saved his life, and upon the expiration of his engagement, he assumed, in 1791, the practice of a profession in which he had been highly educated, and to which he was much attached. From many of his countrymen residing in the place, and most of its families being of Scottish descent, he was in a short time fixed in a highly advantageous business. Dumfries, though now deserted by commerce, and in decay, was at that time in the full tide of prosperity, from a most valuable tobacco trade to Europe, and especially to Glasgow. The national feelings of the doctor's countrymen, and their liberal remuneration of his professional services, secured for him in a few years an independence.

His well merited distinction, together with a consideration for the circumstances under which he had left the University of Edinburgh, induced the Medical Faculty of the University of Pennsylvania, to concur unanimously in an application to the board of trustees to confer upon him the honorary degree of doctor of medicine, which was accordingly complied with at the commencement in July, 1828.

Our colleague was much attached to the theories and modes of practice in which he had been educated. Having imbibed his first principles in the school of Cullen and under his immediate teaching, they never were obliterated from his mind, and were to him the infallible evidences and tests of medical soundness and truth. In a letter to a correspondent of a recent date, he says: "your devotedness to French pathology may lead you into error, you may thereby run the risk of the young advocate of Brown's system, that of a charge of servility and the want of original eclectic power. I fear the consequences of the present rage for this ultra French pathology, which seems to rest almost every thing on a hypothetical basis. In these remarks I confine myself to the doctrine of idiopathic fever—of gastro-enteritis.

"When John Brown published his Elementæ Medicinæ, referring all diseases to tonic and atonic, he observed that the bilious remittent fever of hot climates was a disease of debility and must be treated at once by stimulants. In the second edition of his Elementæ, he says in a note that he must correct his former prescription, for that some of his young American friends and pupils, (and the American students were devoted to him,) informed him that without previous evacuations from the stomach and bowels, his stimuli would destroy such patients—and he followed their advice.—Can you suppose that old practitioners like myself would surrender a long-tried and successful practice in bilious fevers for this novel system of Broussais—no—never. But I cannot bring myself to believe that you embrace the ultra French pathology to the exclusion of prescriptions sanctioned by men of intelligence, observation, and nice discrimination. If you did I would say

"Incedis per ignes
Suppositos cineri doloso."

"I agree with you that such lectures, (meaning lectures on pathology,) should be incorporated into your plan of public education, and rendered essential to obtaining a diploma.

"The success of your University has caused much dissatisfaction and envy—and now they wish to injure its fame, by giving out that the ultra pathology of France, is the ruling passion of your professors."

The two or three last years of Dr. Spence's life were spent in vain attempts to parry the disease which has already been alluded to, to wit, dropsy. Six months before it appeared he had suffered a violent bilious fever which was followed by attacks of gout; ascites and anasarca then succeeded. By the use of his favourite digitalis and excursions during the summer to watering places and on journies, he kept himself alive long after the time, which his malady had threatened as the term of his existence. The scintillations of a mind well stored with the knowledge of his profession, were never more evident than during his sickness. An occasional inactivity would come over him which seemed to have buried in undistinguishing obliviousness his profound, classical, and varied information, then an unexpected association of ideas would suddenly arise, and generating with it the fervid feeling of a highly cultivated mind, would be traced out in all its striking images and combinations.

As a practitioner of medicine he was attentive and sympathizing, and knew perfectly the deportment which suits the physician in the presence of a patient. In the instance of a professional brother, who visited him during his illness, and whose attention was withdrawn during the visit, and its attending interrogatories, to some unimportant and irrelevant object in the room, he said afterwards to a friend, "that man has not yet learned how to behave in a sick room."

The fruits of his professional experience were diligently recorded, he has therefore left many valuable manuscripts, the digest of which it is to be hoped will be presented to the public before long, by a competent person.

A few weeks before his death the gloom of a sick chamber was rendered still more melancholy, by the death of a favourite son in the progress of education. His punctuality as a correspondent ceased with this unexpected blow to his hopes as a parent, and sinking finally under the pressure of infirmities and grief, the next intelligence from him was through a connexion who communicated the tidings of his having died without a struggle.

He has left a widow and a small family of children to deplore his loss.

W. E. H.

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TO READERS AND CORRESPONDENTS.

Communications have been received from Drs. LEHMAN, HEUSTIS, SLACK, SOMERVAIL, HOOE, DAVIS, and DAKIN.

We have received the following works—

Examen des Doctrines Médicales et des Systèmes de Nosologie, Précédé de Propositions Renferment la Substance de la Médecine Physiologique. Par F. J. V. BROUSSAIS, Officier de l'Ordre Royal de la Légion-d'Honneur; Médecin en Chef et Premier Professeur a l'Hôpital Militaire d'Instruction de Paris, &c. &c. &c. Troisième edition. Paris, 1829. (From the author.)

Observations on Mental Alienation, and the Application of its Phænomena to the Illustration of Subjects connected with Medical Jurisprudence. By THOMAS Y. SIMONS, M. D. President of the Medical Society of South Carolina. (From the author.)

An Address to the Graduates of the Medical College of South Carolina, delivered on March 23d, 1829, after conferring the Degree of Doctor of Medicine. By THOMAS Y. SIMONS, M. D. President of the Medical College of South Carolina. (From the author.)

A Circular Letter to the Practitioners of Physic and Surgery in the State of New York, from the Practitioners of Physic and Surgery in the County and City of New York; with a Memorial intended to be submitted to the Legislature of the State of New York at the next session. New York, 1829.

Catalogue of the Officers and Students of Dartmouth College. October, 1829.

Catalogue of the Officers and Students of Bowdoin College, and the Medical School of Maine. March, 1829.

Journal der Chirurgie und Augen-Heilkunde. Herausgegeben von C. F. V. GRAEFE und PH. V. WALTHER. August, 1829. (In exchange.)

Litterarische Annalen der Gesammten Heilkunde. Herausgegeben von Dr. J. F. C. HECKER, Professor der Heilkunde an der Universität Berlin, &c. (In exchange.)

Répertoire Général d'Anatomie et de Physiologie Pathologiques et de Clinique Chirurgicale, ou Recueil de Mémoires et d'Observations sur la Chirurgie, et sur l'Anatomie et la Physiologie des Tissus sains et des Tissus Malades. Par une Société de Médecins et de Chirurgiens, et Rédigé, Par M. G. BRESCHET. Tom. 7. 1 Trimestre de 1829.

Journal des Progrès des Sciences et Institutiones Médicales en Europe en Amerique, &c. Vol. XVII. (In exchange.)

Annales de la Médecine Physiologique. July, September, 1829. (In exchange.)

Revue Médicale. September. (In exchange.)

Bulletin des Sciences Médicales. June, July, 1829. (In exchange.)

Journal Universel. August, September, 1829. (In exchange.)

Journal Général de Médecine. September, October, November, 1829. (In exchange.)

Nouvelle Bibliothèque Médicale. August, September, 1829. (In exchange.)

Archives Générales de Médecine. September, October, 1829. (In exchange.)

Journal de Chimie Médicale de Pharmacie et de Toxicologie. November, 1829. (In exchange.)

La Clinique, Annales de Médecine Universelle. Nos. 11 to 34 inclusive. (In exchange.)

The Edinburgh Medical and Surgical Journal. October, 1829. (In exchange.)

The Medico-Chirurgical Review. October, 1829. (In exchange.)

The London Medical and Surgical Journal, for September, 1829. (In exchange.)

The London Medical and Physical Journal, for August, September, October, November, and December, 1829. (In exchange.)

The London Medical Gazette, for September, October, and November, 1829. (In exchange.)

The Transylvania Journal of Medicine, and the Associate Sciences, for November, 1829. (In exchange.)

The Boston Medical and Surgical Journal. Vol. II. Nos. 37 to 50 inclusive. (In exchange.)

The North American Medical and Surgical Journal, for January, 1830. (In exchange.)

The New York Medical and Physical Journal, for October, 1829. (In exchange.)

A Catalogue of the Officers and Students of Transylvania University, Lexington, Kentucky. January, 1830.

For the gratification of our contributors we continue the references to the works, in which they will find notices to their communications; these references are, of course, restricted to the Journals received during the preceding three months.

Professor Mott will find his Case of Ligature of the Common Iliac noticed in Drs. Unger and Klose's Summarium des Neuesten aus der Gesammten Medicin, Bd. III.; and his Case of Excision of the Clavicle, copied in the Archives Générales for September, 1829.

Professor Bigelow will find his Method of Affording Respiration to Children in Reversed Presentations, noticed in the London Medical Gazette for November 21, 1829; and in the Western Journal of Medical and Physical Sciences for October, 1829.

Professor Coxe's Observations on a Case of Wound of the Heart, are noticed in the Western Journal of the Medical and Physical Sciences for October, 1829.

Professor HARE's Analysis of Swaim's Panacea, is noticed in the Western Journal of the Medical and Physical Sciences for October, 1829; and his Method of Preparing Meconic Acid is copied into the Bulletin des Sc. Méd. for July, 1829; and Kastner's Archives, Tom. XII.

Professor HORNER's Case of Chronic Hydrocephalus, is noticed in Hecker's Annalen for August, 1829; and his Case of Arachnitis of the Brain and Spinal Marrow, in the London Medical and Surgical Journal for March, 1829.

Professor SEWALL's Communication of the Use of Turpentine in Incarcerated Hernia, is noticed in the Western Journal of the Medical and Physical Sciences for October, 1829.

Professor DICKSON's Paper on Dengue, is noticed in Hecker's Annalen for August, 1829.

Dr. JACKSON's Case of Gastro-entero-cerebro-colitis, is noticed in La Clinique for September 19, 1829; his Case of Tetanus, in Bulletin des Sciences Médicales for June, 1829; his Case of Gastro-entero-colitis, in La Clinique, September 19; his Case of Gangrene of the Right Lung, in the London Medical and Physical Journal for August; and his Case of Amnesia, in the Bulletin des Sciences Médicales for June, 1829.

Dr. DANIELL's Paper on Dengue, is noticed in the Western Journal of the Medical and Physical Sciences for October, 1829.

Dr. HAYWARD's Paper on Prussic Acid, is noticed in La Clinique for September 26; in the London Medical and Physical Journal for October; and in the Nouvelle Bibliothèque Médicale for September, 1829.

Dr. WARE's Case of Organic Disease of the Brain, is noticed in the London Medical and Surgical Journal for March.

Dr. WRIGHT's Cases of Erysipelas, of Hydrothorax, of Anasarca and Ascites, and of Extensive Ulceration of the Leg, are noticed in the London Medical and Physical Journal for September; and his Case of Hydrothorax, his case of Subluxation and Fracture of the Cervical Vertebræ, in the London Medical Journal for March, 1829.

Dr. HEUSTIS's Case of Fungous Cerebri, is noticed in the Bulletin des Sciences Médicales for June, 1829.

Dr. DRAKE's Experiments on the Inspiration of Cool Air in Pulmonary Diseases, are noticed in the Journal Universel for August, 1829.

Dr. ARNOLD's Case of Paruria Erratica, is noticed in Unger and Klose's Summarium, Bd. II.

Dr. HAMILTON's Paper on the Use of Turpentine in Incarcerated Hernia, is noticed in the Boston Medical and Surgical Journal for November 24.

Dr. HENDERSON's Case of Disease of the Bones cured by Arsenic, is noticed in the North American Medical and Surgical Journal for January, 1830.

Dr. BRADBURY's Case of Excision of Cartilago-bony Substances from the Knee Joint, is noticed in the Boston Medical and Surgical Journal for November 24, 1829.

Dr. Dickenson's Case of Wound of the Femoral Artery, is noticed in La Clinique for September 26; and in the London Medical and Physical Journal for December, 1829.

Dr. White's Case of Ligature of the Internal Iliac, is noticed in Drs. Unger and Klose's Summarium, Bd. III.; and Horn's Archives, S. 459—462.

Dr. Guild's Case of Epilepsy, is noticed in Hecker's Annalen for August, 1829.

Dr. Webber's Cases of Gangrenous Erosion of the Cheek, are copied into the Boston Medical and Surgical Journal for December 8, 1829.

Dr. Sexton's Observations on the Climate of the Fortieth Degree of Latitude, are noticed in the Boston Medical and Surgical Journal for December 8, 1829.

Dr. Fahnestock's Paper on the Use of the Rhus Glabrum in Ptyalism, is noticed in the Boston Medical and Surgical Journal for December 1, 1829; and the North American Medical and Surgical Journal for January, 1830; and his Paper on the Use of Iodine, is noticed in the London Medical and Physical Journal for September, 1829.

Dr. Pennock's Experiments on the Use of Cupping Glasses in Poisoned Wounds, are noticed in La Clinique for September 9; and in the Bulletin des Sciences Médicales for June, 1829.

Dr. Washington's Case of Gunshot Wound, is noticed in Unger and Klose's Summarium, Bd. III.

Dr. Levert's Experiments on Metallic Ligatures, are noticed in the Nouvelle Bibliothèque Médicale for October; and the Journal des Progrès, Vol. XVII.

Dr. Togno's Experiments on Endosmose and Exosmose, are copied into the Journal des Progrès, Vol. XVII.

Mr. Carpenter's Mode of Preparing Piperine, is copied into the London Medical and Surgical Journal for March, 1829.

Authors of new medical books, desirous of having them reviewed or noticed in this Journal at the earliest opportunity, are invited to transmit to the *Editors* a copy as soon after publication as convenient, when they will receive prompt attention. Under ordinary circumstances, very considerable delay is caused by the circuitous routes through which they are received.

Papers intended for publication, should be sent, *free of expense*, as early after the appearance of the Journal as possible, in order to be in time for the ensuing number. Such communications should be addressed to "Carey & Lea, Philadelphia, for the Editors of the American Journal of the Medical Sciences." All letters on the *business* of the Journal to be addressed exclusively to the publishers.

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Compendium of Gynæcology, or a Systematic Treatise on Women and New-born Children, both in Health and Disease, &c. &c. &c. By C. G. Carus, Doctor of Philosophy, Medicine, and Surgery, &c. &c. &c. Second Edition. Leipsic, 1828, Vols. II. pp. 456, and 608, Plates 2 - 385

XVIII. De Nervi Sympathetici Humani fabrica usu et morbis commentatio Anatomico-Physiologico-Pathologica. Tabulis ænis et lithographicis illustrata auctore Joh. Frid. Lobstein, Medicinæ clinices et Anatomiæ Pathologicæ in Facultate Medica Argentoratensi Professore, Nosocomi Civium Medico Obstetrico Primario Plurium, Societ. Medicarum Sodali.

On the Structure, Function, and Diseases of the Human Sympathetic Nerve. By John Fred. Lobstein, Professor of Clinical Medicine, and Pathological Anatomy, in the Medical Faculty of Strasburg, &c. &c. Paris, 1823. Illustrated with eight plates. pp. 174. 4to. - - - - 429

XIX. A Treatise on Neuralgic Diseases, dependent upon Irritation of the Spinal Marrow and Ganglia of the Sympathetic Nerve. By Thomas Pridgin Teale, Member of the Royal College of Surgeons in London, of the Royal Medical Society of Edinburgh, Senior Physician to the Leeds Public Dispensary, &c. London, 1829, pp. 120, 8vo. - - - - 448

BIBLIOGRAPHICAL NOTICES.

XX. An Account of the Mode of Performing the Lateral Operation of Lithotomy, with Illustrations. By Edward Stanley, Assistant Surgeon, and Lecturer on Anatomy and Physiology at St. Bartholomew's Hospital, pp. 33, 4to. VII plates. London, 1829 - - - - - - - - 462

XXI. Traité Général d'Anatomie Comparée. Par J. F. Meckel. Traduit de l'Allemand, et augmenté de notes, par MM. Riester et Alph. Sanson, Docteurs en Chirurgie de la Faculté de Paris. Précédé d'une lettre de l'auteur. Tome IIIme. 1ere et 2de partie. Paris, 1829 - - - 465

XXII. A Manual on Midwifery; or a summary of the Science and Art of Obstetric Medicine; including the Anatomy, Physiology, Pathology, and Therapeutics peculiar to Females; Treatment of Parturition, Puerperal, and Infantile Diseases; and an Exposition of Obstetrico-legal Medicine. By Michael Ryan, M. D. &c. &c. &c. London, 1829, pp. 353, 12mo. 466

XXIII. Bulletin Universel des Sciences et de l'Industrie, Publié sous les Auspices de Monseigneur le Dauphin. Par la Société pour la Propagation des connaissances Scientifiques et Industriels, et sous la Direction de M. le Baron de Ferussac. 8vo. Paris, 1829 - - - - 467

XXIV. A Practice of Physic, comprising most of the Diseases not treated of in "Diseases of Females," and "Diseases of Children." By William P. Dewees, M. D. Adjunct Professor of Midwifery in the University of Pennsylvania, Member of the American Philosophical Society, Member of the Philadelphia Medical Society, &c. Carey & Lea, Philadelphia, 1830, Vols. II. 8vo. pp. 833 - - - - - - - - - - 468

XXV. Handbuch der Anatomie. Von Martin Münz, Doctor, &c. Professor an der Ludwig-Maximilien's Universitæt zu Landshut. 3 Bände; Enhaltend 1r die Muskel-lehre nach Albin, in Steinabdrücken, &c.; 2re die Gefæsslehre; 3r die Eingeweidlehre oder lehre von dem Sämmtlichen

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Manual of Anatomy. By Martin Munz, M. D. Professor in the University of Louis Maximilian, at Landshut, in 3 volumes; the 1st containing Myology, with engravings on stone from Albinus; the 2d Angeiology; and the 3d Splanchnology, with 80 folio lithographic plates of all the Organs of Digestion, Generation, of the Voice, &c. &c. Landshut, 1821–7. 3 vols. 8vo. pls. 3 nos. fol. - - - - - - - - - - - - 470
XXVI. Addresses delivered on Various Public Occasions. By John D. Godman, M. D. &c. &c. &c. With an Appendix, containing a Brief Explanation of the Injurious Effects of Tight Lacing upon the Organs and Functions of Respiration, Circulation, Digestion, &c. &c. Philadelphia, 1829, pp. 194, 8vo. - - - - - - - - - - - *ib.*

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THE

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MEDICAL SCIENCES.

ART. I. *On Absorption.* By SAMUEL JACKSON, M. D. Assistant to the Professor of the Institutes and Practice of Medicine and Clinical Practice in the University of Pennsylvania.

THE existence of organized beings is made to depend on supplies of nutritive materials derived externally, and the incessant renewal of the elements of their composition. Those supplies must, consequently, be introduced into the interior of the organism; and the elements that have subserved the purposes of vitality be removed for their exterior elimination. A centripetal, and a centrifugal action are, thus, unceasingly maintained. The condition above stated necessitates a function for its fulfilment; and this function, absorption, we propose to investigate, to determine its relation to the physiological and pathological state.

Absorption it is seen accomplishes different objects: it might, then, be inferred, a priori, that it is not a simple, single, and uniform process.

In the simpler animals of the lowest classes, whose structure is a single tissue of homogeneous nature, consisting of a single element—neither vessels, organs, nor apparatus, for the execution of functions exist. The molecular elements of their structure, being every where the same, maintain, with each other, and with exterior matters, the same relations. Each part possesses within itself the conditions of its existence, independent of any other. Aggregation and a determinate form, are the sole requisites of the animal organization.

Placed in the media containing the elements of their being, each molecule attracts, or takes up, in a direct manner, and by its inherent powers, the supply necessary for animal existence. In such beings, organs and functions are dispensed with: and absorption is a property of the molecular structure, effected by a molecular action. But a structure similar to that of the simpler, exists in the more perfect classes of animals; it constitutes the basis, or first element of their organization, forming the web, as it were, of the organs: this molecular absorption, consequently, exists in them.

In the more complex organizations, composed of different elements and organs, and whose various portions possess relations with each other, and with external agents wholly dissimilar, simple molecular absorption could not alone fulfil the various necessities of the being. Functions are, then, present, executed by an apparatus; and, for absorption, an especial structure, or set of organs, is superadded to the molecular absorption, without this last being superseded.

In the human organization absorption is not, then, always an identical process. It partakes equally in the composition of the body, by conveying into it the materials of its structure; and in its decomposition, by taking up, for external elimination, the elements rendered effete and exhausted by vital processes. It may appropriately, therefore, be divided into external and internal absorption. The first is of two-fold character: first, as introducing into the economy, from the intestinal canal, the nutritive elements prepared by digestion; and 2d, as taking up exterior matters unchanged in their nature and properties.

Internal absorption is likewise of two kinds: the absorption of lymph, or white fluids, performed by lymphatics; and of blood, or coloured fluids, executed by veins. In both these classes of absorption, free or disengaged molecules on the surfaces of the tissues, or in the intimate texture of the organs, are seized on, and conveyed into the sanguine apparatus, the common receptacle of the principles destined for nutrition, and for elimination. The movement of the absorbing system is concentric or centripetal—that of the sanguine is eccentric or centrifugal. The two systems are not in direct communication: at one extremity the heart is interposed between them; at the other, intermediate to the arteries, the veins and lymphatics, are the capillaries and the areolar, interstitial meshes, or spaces of the ultimate molecular structure, through which the fluids meander, as may be demonstrated by the microscope.

In examining this function, a general outline of the apparatus executing it, will be the first subject of consideration.

Apparatus of Absorption.—The general view presented of the function of absorption indicates a diversified mode of action, and a varied apparatus. The elementary, or molecular absorption, is evidently a property of the structure in which it occurs, independent of special organs: it is a molecular action. This is, probably, the rudiment, or the commencement of the action of the lymphatic vessels themselves; but it is too recondite, and passes too deeply in the organism to have its positive character clearly determined. This species of absorption exists in the cellular tissue, the serous and mucous tissues, the elastic fibrous tissue composing the vessels, as has been established by the experiments of M. Fodera and M. Magendie, and may be regarded as attached to all the solids. This species is very analogous to imbibition, and it explains the mode of action of many remedies whose effects are obtained by applying them in the vicinity of the part modified by them.

Absorption was for a long period, and until within a few years, supposed to be the exclusive office of the lymphatic vessels or absorbents as they were called. This system of vessels enters into the composition of nearly all the organs of the economy. It takes its origin from all the internal and external surfaces, and from the intimate, interior texture of the organs: it terminates by two central trunks, opening into the subclavian veins, close to the termination of the venous system itself in the heart. The vessels of this system anastomose infinitely, and their course is interrupted by numerous small bodies, called ganglions.

The absorbent system has been separated into two divisions: the chyliferous, either mediately or directly communicating with the cavity of the small intestine, and terminating in the reservoir of Pecquet; and the lymphatics, arising from other surfaces and portions of the body, and finishing as already mentioned. This division is not founded on a difference in the structure of these vessels, but on the respective offices in which they are engaged.

The lymphatics follow the course of the veins, and like them present two layers, one superficial, under the skin, and the other profound, accompanying the deeper vessels. They are furnished with numerous valves, formed by a duplication of their inner membrane, and placed at unequal distances. They are supplied with blood-vessels, and, probably, nerves, though they are not to be detected.

The mode of origin of the lymphatics is yet a subject of controversy. Hewson and Monro believed they commenced with open orifices; but this is denied by Fohmann, who asserts, that in fishes he has observed their commencement to be in a cul-de-sac.

It has been advanced by Professor Lippi, that he has succeeded in discovering direct lateral communications by large trunks between the lymphatics and veins. Fohmann declares that in this respect an error has been committed, and that veins were mistaken for lymphatics: in this opinion he is sustained by the accurate researches of Dr. Rossi, of Bologna, who has shown these supposed lymphatic vessels to be venous trunks.

The ganglions are flattened, oblong bodies, of various sizes, from that of a small millet seed to that of a bean: they occur at unequal but short intervals along the course of the lymphatics; are of a pale reddish-white colour, except in the lungs, where they are blackish, and yellow near the liver; they are seldom isolated, being generally placed in groups.

The structure of the ganglions is not positively decided. They have been regarded as composed simply of lymphatics, infinitely convoluted. But the more general doctrine represents them as consisting of the lymphatics, convoluted, anastomosing together, and divided into cells in the manner of the veins of the penis. The vessels entering the glands are called *afferent;* those passing out, less numerous than the others, are named *efferent.* The ganglions are richly supplied with blood-vessels, both arteries and veins, ramifying between the small cells of its interior, somewhat analogous to the erectile tissues. It is asserted by Fohmann and Meckel, that a direct communication exists in the ganglions, between the lymphatics and the veins, by which substances are introduced immediately into the circulation. This opinion is countenanced by the smaller number of *efferent* than *afferent* vessels; and appears further to be established by the matter of injections into the lymphatics, passing in the ganglions into venous trunks; yet this circumstance must not be too exclusively relied on, as the force of the injection may cause an artificial communication.

The veins, before the discovery of the lymphatics, were supposed to perform the office of absorption. But, after the experiments of J. Hunter, all participation in this function was denied to them. Whatever may be the doubts entertained as to their concurrence in general absorption, they are the agents, unquestionably, of absorption for the sanguine or nutritive humour from the spongy or areolar texture of the organs.

The commencement of the veins is so deeply buried in the minute structure, as to be observed with difficulty. It is a common opinion entertained by the physiologists of England and this country, that the veins and arteries are continuous, the one into the other, forming a closed system, and a direct unbroken circulation. This is certainly correct in some respects. In examining the circulation by the microscope in diaphanous membranes, the blood can be seen to make a circuit, changing its course from a centrifugal to a centripetal direction, evidently passing from an artery into a vein. A very limited portion only of the circulation, however, exhibits this phenomenon; for the larger portion of it no direct return is apparent. The globules of the blood pass off in diminishing channels, until every appearance of vascularity ceases. They, then, move with great irregularity in various currents, some with extreme velocity, others with a scarce perceptible motion, and without a positive direction. Many are arrested, and become fixed; and in parts where no movement is discernible, currents of globules are suddenly formed, giving the appearance of a vascular structure. Such is the character of the last circulation, as it has presented itself to me, in repeated observations made with the microscope. The circulation in this portion of it ceases to be conducted by vessels; it is clearly extra vasa, and is seated in an areolar and interstitial structure.

The sanguine globules of this interstitial or areolar circulation, are reconveyed into the general or vascular circulation by the venous radicles into which they are introduced by the process designated absorption. It is in this manner the veins absorb, or remove the blood from the erectile tissues, when the excitement directing the blood into them has ceased; as in the penis, nipple, &c. It is this process, also, that disburdens inflamed and irritated parts of the blood effused by the congestion attending those states, and which often persists after their cessation.

The precise structure of the venous radicles, too delicate, and too intimately woven into the minute structure, like the lymphatic radicles, to be detected by our means of observation, remains unknown. Of the veins, the conductors of the absorbed fluids and refluent blood, it is unnecessary to add a particular description, as they are well known.

There is one portion, however, of the venous system meriting a particular notice: it is the vena portæ, or the portal system. The blood distributed to the abdominal viscera for the purposes of nutrition and secretion, is collected into delicate capillary veins; these pass into larger branches, and, finally, form one large trunk. This trunk, entering into the liver, divides again into numerous branches, terminating in capillaries. It is perfectly clear that the movement of the sanguine fluid in this system cannot be accomplished by the impulsive action of the heart: neither is it effected by the veins proceeding from the various organs, or from the vena portæ itself, nothing in their structure endowing them with a force of the kind. The movement of the portal blood, must, then, be derived from the capillary extremities, or by a force impelling it on the one part, and attracting it on the other. The portal circulation throws light on the general venous circulation, and removes the necessity of calling into its aid the power derived from the contraction of the heart.

The venous radicles of the mesaraic veins, forming part of the portal system, take their origin in the villosities of the intestines. LIEBERKUHN, MECKEL, and RIBES, by injecting these veins, have filled the villosities of the intestinal mucous tissue, and have seen the substance of the injection ooze into the cavity of the intestine. The same circumstance occurs in injecting the lacteals; exhibiting nearly a similar origin to both these vessels.

Of Chyle and Lymph.—Chyle is the fluid found in the lacteals, or chyliferous vessels and thoracic duct, from two to four hours after taking food. It is formed from the nutritive elements, prepared by the digestive processes already described, and taken up from the cavity of the intestinal canal. Chyle is not the product of digestion, for it is not detected in the contents of the alimentary tube: its first appearance is in the lacteals themselves, and it does not present its perfect characters until it has passed the mesenteric ganglions.

The elaboration of chyle from its crude principles, derived from the products of digestion in the small intestines, is the function or office of the lacteals and their ganglions, and this fluid, or humour, acquires animal properties in its progress through this apparatus. According to the experiments of EMMERT, GMELIN, TIEDEMANN, and VAUQUELIN, the coagulability of the chyle, its reddish tinge, and its approach to the characters of blood, are in proportion to its advance towards and along the thoracic duct.

The chyle is not uniform, but varies in some respects, according to the nature of the food. It is always of a white or milky colour, when animal, fatty, or oleaginous substances have entered into the diet. This appearance is due to the presence of oil in the chyle, for, when treated by sulphuric ether, which dissolves the oil, it becomes diaphanous. The chyle proceeding from vegetable aliment is always transparent.

Chyle, according to MARCET, formed of vegetable or animal food, presents other differences. The first contains more carbon than the second; it yields likewise much less sub-carbonate of ammonia; and its coagulum is less putrescent. Magendie states that the chyle from sugar contains less fibrin than that from flesh; and that the serum, coagulum, and fatty matter of the chyle varies constantly, according to the nature of the food. Other differences, though they have not been made the subject of observations, doubtless exist, derived from the kind of aliment: food of a bad and innutritious quality cannot furnish good and wholesome chyle, and is often a source of disease.

Colouring, odorous, and other adventitious matters mixed with the food, do not affect the chyle. The contrary was supposed to have been established by the experiments of John Hunter, who believed he had witnessed the colouring matter of indigo in the lacteals. But it has been shown by Drs. Lawrance, Coates, and Harlan, of this city, in their experiments on absorption, that, in this respect, that distinguished physiologist was deceived by an ocular illusion. It is now perfectly well determined, by the experiments of M. Magendie and others, that the chyle is not affected by foreign matters mixed with the aliment, or introduced into the intestinal canal.

The *lymph* is less accurately known than the chyle. From the observations to which it has been subjected, it is represented as a transparent, colourless fluid; though it is said by some to possess a light rose tinge: it is viscous, and essentially albuminous. Its chemical composition exhibits some analogy with that of the blood: it coagulates, separating into a serum similar to that of the blood, and a coagulum.

The origin of the lymph is not absolutely decided. M. Magendie, who denies entirely lymphatic absorption, regards it in nearly the same view as the ancients. He believes it to be a portion of the blood returned back to the circulation through the lymphatics, as venous blood is returned through the veins. Lymph on this hypothesis is white blood. Many ingenious, and some forcible arguments are deduced in favour of this opinion. It is not without foundation, but its error is in being too exclusive.

Many tissues, in their natural state, do not admit into them red globules: their circulation consists entirely of white blood; their nutrition is derived wholly from white fluids; such are the serous, the fibrous, the cellular, the cartilaginous tissues, and, probably, the large portion of the medullary nervous tissue. Now, this portion of the sanguine nutritive humour constitutes, it is more than probable, the lymph; for, no other fluid approaches as closely to the blood in its characters, and is, consequently, as well adapted to vital actions. The white blood, or nutritive humour of the white tissues, and the lymph may, then, be regarded as the same fluid; and it is the office of the lymphatics to restore it back to the circulation. But while this is a specific office of the lymphatics, it is not incompatible with a function of absorption. It is singular that M. Magendie should have so strenuously contended for absorption by the veins as an addition to their office in the circulation, and yet have excluded it wholly from the office of the lymphatics. The two systems of vessels possess so close an analogy, that functions of the same order may fairly and safely be attributed to them.

The lymph may, then, be considered as derived from the excess of the nutritive fluids of the white tissues returned into the circulation, and of the disengaged molecules of these tissues set free in the decomposing process of their renewal by nutrition. With it, will also be mixed extraneous matters, that may accidentally happen to be placed within the sphere of the white fluids.

Mechanism or Process of Absorption.—The mode in which absorption takes place, has excited the curiosity, and embarrassed the ingenuity of physiologists to explain. Various hypotheses have been devised for this purpose; few of them, however, pretend to any positive facts in their support. It is generally supposed that the lacteals open into the intestines by patulous orifices, and the chyle, entering into them by capillary attraction, is, then, transmitted by a contractile power in the coats of the lacteals. It is a conjecture of Bichat, that the orifices of the lacteals are endowed with a specific sensibility, which causes them to admit the chyle, and to reject all other matters. These are little more than supposititious conjectures, and very slight evidence to the correctness of any one of them can be adduced. Resort has been had to these explanations, as it appears to have been generally admitted, that no other than physical powers existed to produce the movements of the fluids. Other forces do exist, as will be shown; and, hence, the admission of those hypotheses is entirely unnecessary.

The lacteals bear a very striking analogy to the roots of plants. These absorb from the soil the nutritive elements of the vegetable, prepared by decomposition, or putrefactive fermentation: those absorb the nutritive elements of the animal, from the intestinal canal, prepared by the process of digestion. The means adequate to the process in the one, it is a fair inference, are those employed in the other. Now, it is positively determined, the roots of plants have no vessels with patulous openings, but terminate in a cellular texture, named, by De Candolle, spongiole, with which are connected the lymphiferous vessels, conveying the sap, or absorbed fluid, to the leaves. Capillary attraction, consequently, can have no participation in the process. As little influence, also, has contraction, or the principle, contractility, whose existence is assumed for the purpose of this explanation, in producing the transmission of the absorbed fluids in the lymphiferous or sap vessels; for, some of these pass through the duramen, as well as the alburnum, which is dense, and can admit of no contraction: they may be regarded merely as inorganic tubes. Besides, M. Dutrochet has established most clearly by his experiments, that the power impelling the movement of the sap, proceeds from the spongiole. This power possesses great force. The experiments of Hales, corroborated by those of Mirbel and Chevreul, show that, in the vine, it is capable of raising a column of mercury from twenty-nine to thirty-three inches above its level. Now, the spongiole is too delicate in its structure to display a force of this kind by its physical properties, and it must proceed from a source, wholly unconnected with physical powers.

The absorption of fluids, and their movements in the vessels of plants, being shown to proceed from other sources than capillary attraction and vascular contraction, the same force, and mode of operation, are fully adequate to the same actions in the lacteals of animals.

This force M. Dutrochet has demonstrated by a consecutive series of experiments and deductions, happily conceived and philosophically arranged,[*] to be an electric phenomenon, and to have existence whenever vesicles, pouches, or sacs, either animal or vegetable, containing a fluid, are in contact with a fluid of less density: the last is then constantly introduced within the vesicle or pouch, and, if a tube be attached to this, will rise in it to a considerable height. This power M. Dutrochet has named *endosmose.*[†]. The experiments of Dutrochet have been repeated and extended at my suggestion by Dr. Togno, of this city,[‡] who has verified their accuracy. It is besides well known, that galvanic currents are capable of transporting not only fluids, but even solid substances through pervious tissues, and, according to the experiments of Wedemeyer, through inorganized matter.

Dr. Staples, of this city, has varied the experiments of Dutrochet, by employing coloured substances, and saline solutions, which has led to singular results. He introduced into small pieces of the intestine of a chicken, secured at each end, a portion of solution of gum Arabic, and a solution of rheine, the active principle of rhubarb. These, in a partially flaccid state, were placed in pure water. Endosmose took place, the small sacs of intestine became distended by the introduction of the water into them, but the rheine passed out by exosmose at the same time, and was detected in the water. When the internal contents were examined, no indication of the presence of rheine was afforded. It is thus seen that rheine passes by exosmose from the interior of sacs formed of animal matter, at the same time that endosmose is taking place for fluids.

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[*] L'Agent Immédiat du Mouvement Vital, &c. Par M. H. Dutrochet.

[†] Ενδον, within; ωσμος, impulse.

[‡] Experiments on Endosmose and Exosmose, American Journal of the Medical Sciences, May, 1829.

A weak solution of sulphate of iron was introduced into small sacs formed of the intestine of a chicken, which were placed in a weak solution of prussiate of potash. Endosmose occurred, and the sacs were distended by the passing of the water into the interior of the sac, but not a particle of the prussiate of potash of the solution had been introduced into it. The sulphate of iron had, at the same time, been carried by exosmose from the interior of the sac externally, and formed Prussian blue in meeting with the prussiate of potash. When this experiment was reversed, the prussiate escaped by exosmose externally, and formed Prussian blue by meeting with the sulphate of iron. In these experiments, when the mucous coat was on the exterior by the inversion of the intestine, the phenomena were more promptly produced, and the villi were deeply dyed by the colouring matters.

From these last experiments it would appear that animal tissues expel saline matters by exosmose, while they introduce water by endosmose.

We arrive thus at the evidence of the existence of a force, capable of producing all the phenomena of absorption, the progression of the lymph and chyle, and of the capillary circulation, without having recourse to the hypothesis of capillary attraction, and a contractile power in capillary vessels. We have, in addition, the demonstration that this force can be brought into activity in organized tissues, producing the absorption and adfluction of fluids; and we have established, consequently, the very strong probability, that the introduction of the sap, and its circulation in plants, and of chyle, and its progression with that of the lymph in animals, are accomplished by this force, and in a manner analogous to artificial endosmose.

In the present state of our information, it is not prudent to advance beyond the simple indication of the agent, which, strong probabilities justify us to believe, accomplishes absorption; and the general manner of its performance. The minuter details must be left to future periods, when they will be placed within the reach of explanation, from the facts evolved by profounder observation, multiplied experiment, and more extended research. The cultivation of electro-dynamics, developing a knowledge of their forces, and their application to physiological phenomena, will, I do not question, clear the path of the medical philosopher of a large portion of the difficulties that now impede his progress, and render that clear and explicit which is now dark and confused.

A question much agitated within a few years, and yet awaiting a decision, is venous absorption. M. Magendie would restrict general absorption exclusively to the veins, while many continue to believe, with J. Hunter, that the lymphatics alone are the agents of absorption. The majority of sound physiologists are, however, disposed to admit this function to be exercised by both systems of vessels; and this inference might, a priori, have been drawn from the similarity in the structure of the two, their close connexion, and the analogy of their offices. In the brain, anatomists have been as yet completely foiled in detecting lymphatics, and if they do not exist there, the absorption of the arachnoid fluid, &c. must be effected by venous radicles.

Those who deny venous absorption, in order to avert the force of the experiments of Magendie, and his supporters, allege the existence of very short and minute lymphatics, communicating with the small veins at their commencement, and in the lymphatic ganglions, through which foreign substances gain an immediate admission into the veins. Fohmann asserts he has detected absorbents of this kind. This species of anastomosing between the veins and the lymphatics at their commencement, countenances a conjecture entertained by some, that the two systems of vessels have a common origin, and are distinct only when formed into vessels. By this arrangement, water, foreign substances, and those matters not intended to be assimilated, but to be rejected by the emunctories, are immediately introduced into the veins; while chyle and lymph, designed for nutritive processes, are carried into the general lymphatic system, subjected to the actions of the ganglions, and are advanced in a state of assimilation, when they have reached the venous system. A view of this kind has been proposed by Dr. GEDDINGS, of Charleston, S. C. in a well written essay on Absorption, in the Philadelphia Journal of the Medical and Physical Sciences, Vol. XIV. He, however, argues, that the separation takes place in the ganglions.

It is very certain, from the concurrence of reiterated observation and experiments, that, during the absorption of chyle by the lacteals, water, alcohol, and other matters, are not taken up by them. These substances cannot be detected in the chyle, while their presence is readily verified in the mesenteric veins. This fact explains the rapidity with which drinks, &c. are discharged from the bladder, or detected in the urine, without resorting, with Sir Everard Home, to the violent conjecture of a direct communication between the stomach and bladder; or the equally forced explanation of Darwin, of an inverted action of the absorbents.

The cellular tissue and lymphatic system, have a greater predominance in infancy and in females, than in riper age and in males. They have, consequently, an acute susceptibility, and are exceedingly liable to assume a morbid state in early life and in women. This disposition is lost with advancing years, and in age these tissues diminish in their relative proportion to the others: their diseases are, then, rarely met with.

The activity of absorption appears to hold a relation with the state of the circulation. When the vessels are plethoric, absorption languishes; and it acquires great activity by the diminution of their contents. This fact is fairly established by the experiments of Magendie, who found an artificial plethora, produced by injecting water into the veins, to prevent the poisoning of nux vomica inserted under the skin; and which ensued in shorter periods, according to the quantity of blood abstracted by bleeding. From this circumstance is seen the propriety of preceding the exhibition of those medicines whose effects proceed from their absorption, with depletion or abstinence. The same means should also be resorted to when it is desired to bring the absorbent functions into action in the treatment of disease; as the removal of indurations, tumours, effusions, &c.

Absorption, when it is languid or suspended, may be roused into activity by the direct application of excitant means. In this way the congestion caused by inflammation, and which often persists after the inflammatory action has subsided, is speedily dissipated by stimulants directly applied. This is seen in conjunctivitis after the acute stage has passed: any stimulant almost applied to the conjunctiva, will remove the congestion which alone remains. Indolent white tumours, and enlarged ganglions, when no sanguine irritation exists, are also frequently dissipated by irritating applications, as of iodine, and its preparations, &c.

Pathological State of the Function of Absorption.—The pathology of the absorbent system and function is far from having attained the precision and development that are desirable. Our information on this point is imperfect and obscure, and the etiology of their affections must prove unsettled and unsatisfactory, until our knowledge of the function itself be more definite and enlarged.

The lymphatic system is endowed with feeble sympathies, and is not very readily disordered by transmitted irritations of remote organs, except in those of a highly lymphatic temperament.

The diseases of the lymphatic system are of two different orders, that have not, heretofore, been properly discriminated. The one is the *inflammation or sanguine irritation* of the lymphatics and ganglions, analogous to inflammation in any other tissue, and affecting the mode of their nutrition: the other is disorder of its functional actions, affecting the mode or performance of its absorbing and its assimilating actions, or *simple lymphatic irritation.*

By irritation is meant an increment, always a reaction proceeding from an irritating cause, of the natural organic nutritive actions, or the functional actions of an organ, which tends to, or terminates in, their perversion or denaturalization.

Sanguine irritation or inflammation is the disorder, with augmentation and perversion of the molecular actions, of the red blood, and the elements of the tissues nourished by the fibrine and red globules: lymphatic irritation is disorder, with augmentation and perversion of the molecular actions, of the lymph or colourless blood, and the elements of the tissues composed from the albuminous principles. Both species of irritation are attended with a series or class of phenomena presenting different characters, as they are modified by the tissue, its anterior condition, function of the organ, the temperament of the individual, the development of organs, the state of the fluids, and probably nature of exciting cause.

The principal source of the *inflammation* of the lymphatic system, are impressions on the surfaces in which its radicles are seated, or irritations excited in those surfaces: it may also proceed from offending causes introduced by absorption.

The functional disturbances producing lymphatic irritation depend chiefly on the predominance of the cellular and lymphatic tissues, and an excess of lymphatic fluids. With this state constantly exists extreme susceptibility of the capillaries and structure connected with the lymphatic circulation, and which, consequently, suffers with facility aggressive impressions.

The inflammation or sanguine irritation of the mucous tissues, very rarely fails to be extended into the lymphatics arising from them. This fact was announced by Bichat, but has received much greater elucidation, and been placed in a more conspicuous light, by the researches of M. Broussais. The enlargement of the mesenteric ganglions, the result of their too active nutritive actions, and their suppuration, are always the consequence of enteritic irritation. This condition of those ganglions has been regarded as a specific disease, and as interfering with nutrition, by preventing the absorption of chyle. The emaciation of the patient is not, however, a consequence of any obstruction in the ganglions, as is supposed, for injections pass them with facility. It is to be accounted for by the imperfect chylosis, or production of chyle, the process of which is interrupted by the irritation of the digestive mucous tissue; by the disorder attending on absorption, caused by the morbid state of the mucous tissue in which the lacteals arise; and by the defective assimilation produced by the inflammation of the lacteals, and especially the mesenteric ganglions.

Inflammation, and especially, ulceration of the skin, is a common cause of inflammation in the lymphatic ganglions in the vicinity of the part affected. The neighbouring lymphatics will be seen inflamed, marked by a red streak on the skin, painful and hard to the touch; and the ganglions will become tumefied and suppurate. In this way are buboes formed by ulcers on the penis, by inflammation of the urethra, and by inflammation on the toes, &c.

The sanguine irritation, or acute inflammation of the lymphatics, is well characterized by the usual evidences of inflammation. They are red, tumefied, and painful. The ganglions, when inflamed, enlarge rapidly, become acutely painful, and suppurate easily. The tumefaction is confined chiefly to the gland, is hard and resisting, painful on pressure; it is generally well defined, and when advancing towards suppuration, the skin is of a clear red. The suppuration usually consists of laudable pus. The inflammation of the lymphatic ganglions occurs in those of the sanguine temperament.

A very different condition is frequently produced in those of the lymphatic temperament, and by the very same causes which have given rise to the preceding form of inflammation in the sanguine. The tumefaction is diffused around the ganglion, is doughy to the feel, but sometimes hard; it is but little painful, though in the nervous, and when renitent, it is occasionally sensible; and the skin is generally white, or but slightly reddened. A sense of fluctuation is often perceptible, leading to a supposition of a collection of pus; yet, if a lancet be introduced no pus is evacuated; blood mixed with lymph alone follows the puncture, and when the blood has ceased to flow, there is frequently a discharge of lymph solely. Purulent suppuration never, or certainly very rarely, takes place in this species of irritation. These are the phenomena characterizing the proper lymphatic irritation. In these cases the irritating cause occasions a lymphatic congestion. The white fluids being most abundant, and their appropriate vessels and tissues the most susceptible, the phenomena of irritation are manifested in them, as in the sanguine it is manifested in the red fluids, their vessels and tissues. The lymph, or white fluids, are determined towards the seat of irritation, absorption is suspended, and a lymphatic congestion ensues, precisely in the manner that red blood, in the sanguine temperament, accumulates around the point of irritation, and produces sanguine congestion. Instances of this kind I meet with constantly in individuals highly marked by the lymphatic temperament. I had a female patient, a married woman, affected with gonorrhœa by her husband, whose left groin, and a large portion of her abdomen presented this state of lymphatic engorgement. It is produced sometimes by chancres; I have seen it follow a furunculus on the thigh; and many cases of it caused by exposure to cold. I have known surgeons to misunderstand its character, and to insist on its syphilitic origin in such instances.

The chronic state of this form of irritation in the lymphatic tissues and circulation, constitutes scrofula, and gives origin to tubercles in the lungs, and other organs; and to scrofulous tumours in the neck, groins, &c.

It is highly important to make the discrimination between the sanguine irritation of the lymphatics, and this last form. For, while poulticing and warm fomentations give relief in the first, and promote a healthy suppuration, in the last, or simple lymphatic irritation, they enlarge and extend the swelling, increasing the lymphatic congestion and effusion of white fluids, rendering the disease more inveterate.

M. Broussais has recognized this form of irritation, which he names sub-inflammation. He has not, however, explained its phenomena, or appeared to understand the mode of their production. He further makes no discrimination between its acute and chronic degree, and does not sufficiently distinguish between it and the sanguine irritation or inflammation of the lymphatic vessels and ganglions. The acute state of it does not appear to have struck his attention, and his observations are, as far as I have seen, confined solely to the chronic degree.

From not enlarging on the nature of the phenomena of lymphatic irritation, or sub-inflammation, as he terms it, some of his pupils reject it as unfounded. This is the case with M. Begin. The objections of this gentleman turn on two points: the first is, that the anatomical disposition of the lymphatic vessels must cause their fluids to flow from the periphery to the centre, and, consequently, cannot admit the congestion, or a radiatory convergence and accumulation of lymph towards an irritated point, as occurs with red blood: and second, that on anatomico-pathological examination, the evidences of inflammation are found as in other tissues.

The first of these objections is founded on an entire misconception of the lymphatic system, and of the phenomena of its irritation. The lymphatics are the returning vessels of the lymph, or white blood, as the veins are the returning vessels of the red blood. The lymphatics absorb the white blood from the capillaries and areolar tissue, into which it alone penetrates in a natural state, as the veins absorb the red blood from the capillaries and areolar tissues in which it circulates. The lymphatic trunks are no further concerned in the phenomena of lymphatic irritation, than the veins are in sanguine irritation or inflammation. Lymphatic irritation is seated in the lymphatic capillaries, and the tissues in which white fluids alone penetrate, in the same manner as inflammation is seated in sanguine or red capillaries, and the tissues nourished by red blood. The lymphatic trunks or vessels are foreign to lymphatic irritation, as the venous trunks or vessels are foreign to inflammation or sanguine irritation. It would be as valid an objection to the existence of sanguine irritation, that the veins do not admit a retrograde course of their fluids, as it is to lymphatic irritation, that the lymphatics do not suffer a retrocession of their fluids. The first objection of M. Begin is, then, invalid; possesses no cogency, being founded on a misconception of the phenomena composing lymphatic irritation, or the sub-inflammation of Broussais.

His second objection is equally destitute of weight. It arises from confounding the *sanguine inflammation* of the lymphatic ganglions, always developed in the advanced progress of their diseases, with simple *lymphatic irritation*. Besides, lymphatic irritation is not necessarily connected with enlarged lymphatic ganglions. They are often inflamed independently of any affection of the lymphatic capillaries, and these sometimes manifest the characters of their peculiar irritation, while the ganglions remain unaffected.

Lymphatic irritation is productive of various morbid changes in the lymph or white blood, and in the mode of nutrition of the white tissues. The most common production of this kind are tubercles, developed with so much facility in the lungs, compressing and destroying their tissue, in those endowed with the lymphatic temperament. Tubercles, though more frequently formed in the lungs than in other organs, are found in most of the tissues. Next to the lungs the serous membranes are most frequently their seat, but they occur in almost every portion of the animal structure.

The nature and production of tubercles have been subjects of constant discussion. Bayle and Laennec, with very little evidence to support their opinions, regard them as possessing a distinct vitality from the surrounding tissues, which have no share in their production; and that they are a species of morbid organized tissue. Baron, on grounds no stronger, supposes them to be, in their origin, a species of hydatids, subsequently becoming concrete and converted into tubercles. These opinions are not entitled to weight, being little more than bare conjectures.

Tubercles do not exhibit, according to Gendrin, the globules of fibrin, or of true pus, but yield albumen on examination. They occur most readily in those of the lymphatic temperament, in whom the white tissues, and the lymphatic fluids, (which are albuminous,) are predominant, and in their commencement, contrary to the assertion of Laennec, they are fluid, or of a soft consistency. Tubercles are, then, it is most probable, a species of lymphatic pus, or a morbid secretion resulting from an irritation in the lymphatic vessels and tissues in which the white fluids circulate; and whose characteristic property is to assume the concrete state

The opinion in respect to their production, entitled to most consideration, and which I have found in my researches sustained by observation, is that of M. Broussais. This distinguished pathologist places their seat in the white capillaries and lymphatic ganglions, and attributes them to an irritation developed in those tissues. This irritation of the white capillaries is frequently excited by sanguine irritation or inflammation in adjacent tissues. Inflammation, for instance, of the bronchial mucous membrane, will give rise to the formation of tubercles in the parenchyma of the lungs.

The irritations of both sets of capillaries, the red and the white, are often also concurrent, as is seen in some cases of pneumonic inflammation, in which tubercles are developed amidst the alterations of structure proceeding from sanguine irritation. M. Broussais has not sufficiently distinguished between the two irritations to render his meaning clear and distinct. Hence, Laennec, Gendrin, and Louis, who oppose his views, found their objections entirely on grounds irrelative to the question. Their arguments turn entirely on *sanguine irritation or inflammation*, as the proximate cause of tubercles, while it is only asserted to be one of the occasional or exciting causes of *lymphatic irritation*, the proper proximate cause of the formation of tubercles.

The lymphatic capillaries, the white tissues, and the albuminous fluids, are the subjects of other morbid formations, a consequence of irritation provoked in them, and giving rise to a perverted mode of nutrition—such as scirrhus, encephaloid tumours, and other morbid formations of a cancerous nature.

Absorption we have presented as a function equally exercised by the veins and lymphatics, and intimately concerned in the nutritive movements of the fluids, or the circulation, as it is generally termed. If this view of the function be admitted as correct, it must enter as an element into the morbid states of the circulation, or the movements of the fluids. In inflammation a stasis of the fluids exists, they accumulate in the part where this state has been excited, and a congestion is produced. This condition does not arise from any difficulty in the direct circulation, or that where the blood passes immediately from afferent or arterial into efferent or venous vessels, for the veins proceeding from an inflamed part are distended with blood, and fill up rapidly if the blood be pressed out of them. The congestion, then, must proceed from the suspension of absorption by the venous radicles, the mode in which the blood is returned back into the general circulation from the capillary and interstitial, or areolar circulation. This circumstance has been overlooked in all the theories of inflammation, yet it appears to me to constitute one of its essential characters.

The defect of venous absorption frequently subsists after the first period of irritation has passed away, and the congestion, or blood stagnating in the tissue, continues from this cause. The application of an excitant in this state, by awakening absorption, occasions an almost immediate disappearance of the redness and tumefaction that have remained persistant after the cause inducing them had ceased. This passive condition is often confounded with the active period of inflammation, and those who do not understand the different phenomena comprehended under the term inflammation, are led into false conclusions, and sometimes most erroneous practice, from the fact above stated: they suppose it an evidence that inflammation can be cured by excitants, and are induced to resort to their employment in the active periods of inflammation; a practice fraught with great hazard to the integrity of the organs and life of the patient.

The same defect of absorption occurs in simple lymphatic irritation, and the congested lymphatic humours collect and stagnate in the tissue where the irritation is developed. Hence proceeds the tumefaction, generally colourless, that attends it, and the lymphatic fluids which issue when an opening is made.

The collection of serous fluids constituting the various forms of dropsy, has been attributed to defective absorption in the lymphatics, independent of any inflammatory action. It was supposed that an equilibrium existed between the exhalation of the serous sacs and cellular tissue, and the absorbing function of the lymphatics, and that a loss of power in these last, suspending their function, was sufficient to cause an accumulation of the exhaled fluid, and to form dropsical collections. This doctrine is, however, a pure hypothesis, and is not substantiated by any positive facts. In the experiments of Munro and of Dupuytren, who secured the thoracic duct in animals by ligatures, no dropsical swellings were induced by the suspended function of the lymphatics. Sir Astley Cooper has recorded a case of obliteration of the thoracic duct, in which also no dropsical collections had occurred; and the same circumstances have been observed by M. Andral, the younger.

On the contrary, ligatures on the veins, and obliterations of those vessels by the inflammation of their lining membrane, an occurrence by no means rare, are invariably productive of dropsical effusions, showing that the serous or aqueous portion of the sanguine fluid is absorbed and returned into the circulation by veins, and not by lymphatics. From the defects of absorption, by the obliteration of the cavities of venous trunks, or other causes impeding the transmission of the blood through them, dropsies may frequently be induced; but the most usual proximate cause is inflammation of the serous sac, or the cellular tissue, in which the effusion exists.

Dropsies may, however, exist, independent of inflammation. At least, I have often examined subjects that have perished under chronic ascites, in which no trace of inflammation or alteration of structure could be detected in the peritoneum. In the dropsical effusions accompanying the close of the organic diseases of the heart, this is uniformly the case. Not the slightest morbid change is perceptible in the tissues from which the effusion has proceeded. We do not know to what extent the phenomena of endosmose and exosmose prevail in the animal economy, or the part they may perform in the process of absorption. But it is completely established that endosmose is quite adequate to the production of absorption, and exosmose of effusion. Inflammation may be a cause of effusion, by the modification it imparts to these actions; and they may be perverted by causes that do not produce inflammation, yet occasion serous effusions.

The milk leg, as it has been termed, or phlegmasia alba dolens, succeeding so frequently on parturition, it would appear from recent examinations, proceeds in some instances, at least, from inflammation of the large trunks of the veins obliterating their cavities by the formation of coagula or fibrin. In this disease the cellular membrane of the affected limb is distended with a sero-albuminous fluid, causing a dense tumefaction: absorption here appears to be suspended by the loss of function in the veins. This affection is, however, not unfrequently complicated with lymphatic irritation.

Absorption may deviate from its normal state by its too great activity. It occurs as a symptom in different diseases, but cannot be regarded as a distinct affection. In fevers emaciation is rapidly produced by the absorption of the fat and cellular fluids; but in chronic affections every portion of the structure is wasted, even to the substance of the bones, constituting *atrophy.* I witnessed a case of atrophy attended with severe pain in the extremities and the trunk, and with extreme tenderness to pressure. The appetite was good, the nutrition abundant, and the gastric digestion free of embarrassment. The wasting of the frame, notwithstanding, gradually progressed, and arrived at the last possible extent. After death chronic inflammation and ulceration of the lower bowels were found to exist, but, from the regularity of the alvine discharges, and their natural appearance during the earlier periods of the disease, it is doubtful whether they occured until a short time previous to its close.

Absorption, composing part of the complex phenomena of which nutrition consists, enters into the deviations disturbing the order of this function. In a healthy state, a certain equilibrium is maintained between the processes of composition and decomposition composing the nutritive function. It is not uncommon for this equilibrium to be lost, and the balance be directed to the one side or the other, without a positive perversion of the function: when the process of composition possesses the ascendancy, nutrition is in excess, and hypertrophy prevails; when decomposition and absorption obtain the superiority, atropia, or the wasting of the solids, is the predominant phenomenon. In a morbid condition, perversion of the function ensues, and absorption, when unduly active, occasions thinning, softening, ulceration, and other modes of the destruction of the tissues.

Art. II. *Aneurism of the Arteria Innominata, involving the Subclavian and the Root of the Carotid, successfully treated by tying the Carotid Artery.* By Valentine Mott, M. D. Professor of Surgery, New York.

NOTWITHSTANDING the tone of decided reprobation and ridicule with which Allan Burns* expresses himself concerning Brasdor's proposition to apply the ligature upon the anticardial side of certain aneurismal tumours, and the numerous arguments urged against the revival of his operation by some professional critics of considerable authority, experience seems to have shown that it is not only safe, but in some cases superior to the Hunterian mode of treatment. Some of the cases in which the operation on the anticardial side of the tumour has been lately performed in Europe, are said to have proved successful;† and I am gratified to have it in my power to add another instance of its success in perhaps the first case, that this operation has been performed in America.

Moses R. Gardner, ætat. 51, by profession a farmer, of sound constitution and good habits of life, applied to me some time in March for advice.

He gave the following relation of his case:—About three years ago, while occupied in removing a building, and compelled to lift heavy weights, he was attacked with pain in the upper and back part of the neck. This lasted until the month of January, when it extended to the right shoulder and arm, and continued until the following May; it then partially subsided, and he observed his voice was becoming hoarse, which he attributed to exposure and consequent cold. About eighteen months since, while shaving, he discovered a small swelling at the upper part of the breast bone, but did not remark any throbbing in it until some time afterwards. He had consulted a physician, but received no positive opinion on the case.

Upon examination, I found above the sternum a pulsating tumour, about the size of a pigeon's egg, spreading some distance under the clavicular and sternal portions of the right sterno-mastoideus muscle, in the course of the subclavian artery, and extending as low down upon the pleura as the second rib, compressing more or less the bronchial tubes, and producing on the least coughing or exercise a wheezing, not unlike that of asthma. He shrunk from the least pressure upon it; complaining of impeded respiration, followed by pain. Its pulsations were synchronous with those of the heart, and decidedly aneurismal.

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* Surgical Anatomy of the Head and Neck.

† See Wardrop on Aneurism. London, 8vo. 1828.

After fully explaining to him the nature of his disease, and its probable fatal termination should it increase and be left to itself, I advised him to return home; to avoid all exertion; to be occasionally bled, and to confine himself principally to a vegetable diet; but should he observe the least increase either of the tumour or any of his symptoms, to come again to me, and I would decide on the propriety of an operation.

After that time I occasionally saw him; he seemed to understand his case fully, and was very desirous to take the chance of the operation; but as I could not observe any material change in the disease, I recommended him to pursue the same directions, and wait patiently until it should occur.

On the 12th of September he again came to the city. I found the tumour above the sternum had increased to the size of a large walnut, and upon a careful application of the stethoscope, it was evidently encroaching more upon the chest. The whizzing sound, *(bruit de soufflet,)* could be heard; the thoracic viscera were sound, the respiratory murmur being distinct throughout. His respiration was very much impeded by speaking, walking, or coughing, and almost entirely suspended by the least pressure upon the tumour; the action of the right carotid was much more feeble than that of the left; no pulsation could be discovered in its branches; the right subclavian, external to the scaleni muscles, was natural, while the axillary and brachial arteries could hardly be felt; at the wrist no pulse could be found; the pulsations of the arteries of the left side were natural. His general health was good.

In reflecting upon this case, and comparing the relative situation of the parts, I was persuaded the aneurism was of the arteria innominata, involving the subclavian and the root of the carotid; having formed this conclusion, I considered it a proper case for the operation proposed by Brasdor, and recently so ably revived, and first successfully performed by the distinguished Wardrop, whose scientific researches and masterly views of this subject, have since been so fully confirmed by himself and others.

I thought further delay unnecessary, and he being willing to abide by my judgment, after having stated to him the chances of the operation, I resolved on its performance. From the evident interruption in the circulation of the right arm, and the apparent effort of nature to effect a spontaneous cure, I determined upon tying the carotid first, to observe the result, and afterwards to secure the subclavian, should it be required.

On the 26th of September I operated. The artery was taken up in the usual manner; no material change was observed.

27th.—9 A. M. Slept well, and feels refreshed; thinks there is more room, as he expresses it, in breathing; complains of a little soreness of the tonsils in swallowing; pulse 58, regular, and tranquil; skin natural, pulsation and size of the tumour evidently diminished. 9 P. M. Much more restless from mental alarm; pulse 68, tense. In other respects, the same as in the morning; being habituated to laudanum, was permitted to take a tea-spoonful.

28th.—9 A. M. Slept well after the opiate; breathes easily, and says he takes "a more satisfactory breath," than he did before the operation; feels much less of the pulsation in the tumour; pulse 63, not so tense; skin natural; cough much less. Ordered a dose of calcined magnesia and Epsom salts. 9 P. M. Has passed a comfortable day; his wife, who arrived from the country since the morning, expressed her surprise at the improvement in his voice and breathing; and the difference in the beating of the tumour. Pulse of the right radial artery very distinct, but intermitting once from ten to fifteen beats; in the left arm 80; coughs frequently, and expectorates freely; skin natural; tongue a little white; salts have not operated. Ordered the dose to be repeated, and if restless, after its operation, to take his usual anodyne.

29th.—Saluted me this morning upon entering his room, with a full and fine voice, and said he was well enough to call on me; salts operated freely; thinks his cough and expectoration much less. I found him lying down, and breathing quietly; pulse 71, and regular. The radial artery of the right arm beating as last evening, with fewer intermissions, but of longer continuance; skin over the tumour more wrinkled; pulsation appears less, and feels weaker. Directed to continue his tea, toast, and gruel. 8 o'clock. As well as in the morning; takes a full breath without the least wheezing; pulsation in the right wrist very distinct and regular; in the left 62 to the minute. Continues the opiate.

30th.—Found him lying more recumbent than at any former period; pulse 70, and regular; right radial artery does not beat quite so firm as yesterday; wound discharging a little, was dressed.

October 2d.—Says he now feels as if he would get well; cough rather more troublesome; pulse 57; pulsation of the right radial the same; his bowels not being free, directed sub. mur. hydr. grs. viij.—sup. tart. potassæ, pulv. jalapæ, āā ℈j. M. Evening. Medicine has not operated; directed a dose of sulphate of magnesia.

3d.—Cough and bronchial effusion very much diminished by the operation of the cathartic; pulse 68.

4th.—Feels very well; passed a good night; all his symptoms improved; pulse 74; can bear any degree of pressure upon the tumour without the least pain or difficulty of breathing.

10th.—Continues to mend, and is sanguine as to his recovery; pulsation of the tumour hardly perceptible, and to the touch very much diminished; cough less troublesome; left pulse 66; right, very feeble.

16th.—Ligature separated and came away last night; the tumour above the sternum, and pulsation entirely disappeared; cough and breathing better; voice nearly natural; pulse 66; now and then a very faint pulsation of the right radial artery; right hand a little swelled, and feels numb, and complains of the want of power to close it.

22d.—Wound just healed; weakness of the arm very considerable; fingers very thick and clumsy; arm swelled and pits upon pressure; no pulse in the right radial artery; breathing very easy; cough and expectoration much less; can sleep easy in any position, which he has not been able to do for many months.

26th.—Left town this morning for his residence in New Jersey.

New York, Dec. 8th, 1829, 25 *Park Place.*

Art. III. *Some Observations on the Plant that produces the Officinal Jalap, as established by its Culture during three successive Seasons.* By John Redman Coxe, M. D. Professor of Materia Medica and Pharmacy in the University of Pennsylvania. [With two plates.]

It is not my intention to take up much time in the consideration of the subject which this paper is intended to embrace; viz. the real character of the plant that affords us the officinal jalap. It will be seen, by referring to the American Dispensatory, that although it has been one of the most prominent and approved articles of the Materia Medica, for upwards of two centuries, the absolute character of the plant producing it has been involved in obscurity. Desirous of bringing it fully to light, I attempted repeatedly to obtain the living plant from its domestic source, but unfortunately was unsuccessful in my endeavours; until in the year 1827, I obtained, by the kind attention of Mr. Fontanges, a number of the plants in a growing state, which he had the goodness to procure from Xalapa. The following statement may be considered as a diary of the facts which have since come to my knowledge. During three years successively, the plants have grown with great luxuriance in my garden; and, with the exception of fully ripening their seeds, have abundantly repaid me for the anxious interest I felt respecting them.

On the 8th of June, 1827, I received the plants from Mr. Heyl, to whose care they had been consigned.

The shoots, eight or ten in number, I found to have suffered from the voyage. They resembled the *Convolvulus*, but of a sickly growth, about six to ten inches high, and with several small cordate leaves upon each stalk. Supposing an immediate transplantation might benefit them, I put out two or three of the bulbs or tubers into the open ground on the same day, and planted some others in pots, in the *same earth* in which they had reached me. All of these last unfortunately died: this I presume must have arisen from the earth being impregnated with salt water, and which was probably the cause of the primary unhealthy state of the whole number. It was fortunate therefore that I had placed some in the garden, where I soon had the pleasure of seeing them give out fresh and vigorous shoots, which grew rapidly, so that by the beginning of July, they began to wind around a string I had prepared for them. They continued to grow with increased vigour, the leaves enlarging as the stalk advanced; and by the beginning of September they had attained a height of about twelve feet, several buds beginning to put forth very slowly, and not opening in flower until the beginning of November. Indeed, owing to the frost, only one of them came to perfection; and this one was secured from the same fate with the elegant buds that were on the point of expanding, by cutting off a section of the plant and putting it into water in a warm room: from this flower the first drawing I had made was taken, having a beautiful lilac or carnation waxy transparent colour.

The leaf differs entirely from that given by Woodville in his Medical Botany; as does the whole appearance of the flower: but I have since found much diversity in the leaves, as may be seen in the engraving; yet although thus differing among themselves, they were *always* cordate. At each leaf two small buds appeared, and in a few instances three, on the uppermost branches or offsets, each on its own particular footstalk. The common *Convolvulus* or *Ipomœa* of our gardens, I found to have a diversity of buds, even up to five, arising from the same part of the plant as in the jalap, viz. from the angle formed by the leaf with the stem.

Excepting the leaves, the plant appeared scarcely more than a reddish-brown thread, about the size of a crow-quill, to the height of twelve or fourteen feet; from thence, at the junction of nearly every leaf, an offset originated, growing luxuriantly to the length of several feet: the whole length of the plant must have been twenty to twenty-five feet, the numerous offsets springing forth nearly the whole extent, and each in turn affording axillary offsets. There were probably about twenty buds of different sizes, of the most beautiful appearance, that were destroyed by the frost; the longest, by admeasurement on October 23d, including the peduncle and calyx, fully two inches. The leaves were throughout solitary and alternate, cordated, and from one to three inches long, including the footstalk. The stem, besides twining round its support from left to right, having a strong disposition to twist upon itself throughout.

The frost destroyed the flowers before even evincing a disposition to seed, and as the cold increased, being fearful of trusting the roots during winter, to the open air, I took them up on the 21st of November, and planted them in a pot in the house on the same day; keeping them in a warm room the whole winter, and slightly moistening the earth occasionally.

On the 12th of April, 1828, I found three small shoots beginning to appear, which by the 29th of the month were between two and three inches high; on which day I planted one out in the open air. On the 7th of May small cordate leaves began to appear; the slender reddish stem had commenced twining around an adjoining twig, and counting the convolutions, was now full five inches in height. By the 17th it had grown to fully twelve inches, the leaves augmenting in size and number.

June 1. Including the convolutions, it is now nearly four feet high, and by the 8th was nearly six inches higher, extremely vigorous, and beginning to display the appearance of small offsets from the upper leaves. In breaking off a leaf, I found a milky juice exude in small amount, and of little taste.

16th. It is now between six and seven feet high, and has about fifty vigorous leaves of a vivid green.

July 1st. Now upwards of eight feet high, with five or six vigorous offsets from the axillæ of the upper leaves, and fresh ones forming.

This plant continued to thrive vigorously, and probably reached the height of twenty feet. Several minute buds made their appearance; but not one came to perfection, either on this, or the others, which grew with equal luxuriance; so that I was completely disappointed in my expectation of becoming acquainted with the seeding of the plant, from its having had a start of growth many weeks beyond that of the preceding year. The frost coming on, I took up the pot in which it was planted, and preserved it in the house during the winter, the stem gradually dying down. In this state it continued, being occasionally slightly watered, until early in the month of April, 1829, when I took it up, and found it considerably enlarged, and left it exposed to the air for some days, during which time it became wrinkled and seemed drying into the corrugated form in which the imported root appears: I therefore replanted it, and placed it in the garden, and on the 18th of April I noticed it shooting from the earth. By the 25th, a small stem, about three inches long, was beginning to twine around an adjoining stick, and the same day a second shoot made its appearance. May 4th. A small cordate leaf appeared on the first stalk, now nearly a foot high. It continued rapidly to increase, and by the 27th of June it had numerous offsets from the junction of the upper leaves with the stem, being now about fifteen feet high; and on these offsets, fifteen or twenty buds seemed to be progressing, of different sizes, so that by comparing the statements of the preceding years, it will be found to have far advanced before them.

The storms we experienced on and about the 4th of July of this year, extinguished my anxious expectations, by beating off every bud then upon the plant, although many very vigorous fresh offsets put forth from the main stem, as it progressed in height. By the 20th of August, it was full twenty feet in height, but without the appearance of a new bud. Having given up all hopes of its efflorescence, I paid but little attention to it, but about the middle of September I was agreeably surprised at perceiving several small buds pushing forth, which, by the 20th of October, had greatly augmented, perhaps not less than one hundred, and some of the most forward being now nearly one inch and a half in length.

October 23d.—I measured one, and found it, including its footstalk, to be three inches long; and on this day, one of the flowers expanded, continued open all that night and the next day, and falling off on the 25th, when the seed-vessel, to which the pistillum continued attached, was of considerable size. Another flower opened on the 25th, and fell off the next day, leaving a seed-vessel of sufficient size to induce me to hope that seed might be perfected. After this, probably fifteen or twenty buds flowered very beautifully; and from one footstalk, in some places two buds were seen, in others, three.

All my expectations were however blasted, by the severe frost which came on about the middle of November, and completely destroyed every sign of life in the plant; which I was unable to remove into the house, from the complete intertwining of the offsets in every part, amongst themselves, and the adjoining plants. The pot of earth, moreover, in which were the tubers, was frozen throughout, and I of course expected they were killed; I took it however into the house, and allowed it to thaw gradually in a cool room—and in four or five days, with a heavy heart, I removed the earth, and found my tuber vigorous and healthy, increased greatly in size, nearly as large as an orange, and in every respect resembling in colour and appearance, a dark skinned potatoe. Numerous suckers proceeded from it, from which fine radicles arose, and three new tubers were formed of the size of nutmegs; several offsets were shooting towards the surface of the earth; all which, after procuring their delineation, I planted again in about a week, where they now remain for further elucidation.

The skin of the tuber is very thin, and the whole habitude of this interesting plant, below the surface, seems closely allied to the common potatoe. Dark as is the appearance of the dried tuber as used in medicine, when fresh, its internal aspect is as white as a potatoe, but soon is clouded by atmospheric exposure.

Twenty grains of the tuber, dried and powdered, were given to a healthy man; it produced two watery evacuations and some griping.

I have now given, as concisely as I could, all the particulars I have learned of this long disputed plant; which turns out to be an *Ipomœa* and not a *Convolvulus.* The difference indeed is trifling—but it is no small matter in a disputed point, to completely settle the ground of controversy. I had a drawing made of my first year's flower, and this year another; to this last, I was enabled to add the tubers and their offsets, so that nothing remains to be known respecting the plant, but the character and number of the seeds; this I hope to accomplish another season. The engraving accompanying this statement, is an intermixture of the two drawings above mentioned, in order to give a view of the diversity of the leaves, in the two cases.

For the description, I am indebted to my friend Mr. Nuttal, so well known for his extensive attainments in the science of botany. It might possibly have been more complete had he seen it in its state of perfection. I have been indebted to him for his remarks on the subject of the jalap, (vide Dispensatory,) before I had been so fortunate as to obtain the plant, as above detailed. The following is his description of it:—

IPOMŒA JALAPA.—*Root.* A roundish, somewhat pear-shaped tuber; externally blackish; internally white when recent—and warty;[*] sending out long fibres from its lower point;[†] and also from the upper root stalks produced, which appear to be a portion of a persisting succulent stem.

Stem. Round, (apparently,) herbaçeous, of a bright brown colour,[‡] and very much inclined to twist; and, as well as the whole plant, perfectly smooth.

Leaves. Heart-shaped, entire, smooth, conspicuously acuminated, and deeply sinuated at the base: the lower ones sometimes nearly hastate, or with diverging angular points: the under surface prominently veined: the footstalks often nearly the length of the lamina of the leaf, from the point of its insertion.

Peduncles. About the length of the petioles, bearing commonly *two*, more rarely *three* flowers.

Calyx. Without bracts, five-leaved, obtuse; two of the divisions external.

Corolla. Funnel-formed, wholly lilac purple, (and of a waxy semitransparency. C.)

Stamina. Five; anthers oblong, white; somewhat exserted.

Pistillum. Germ slender and attenuated into the style. (Observation on an imperfect flower. C.) *Stigma.* Capitate, simple.

Seed. As yet unknown.

I have endeavoured to obtain information, hitherto unsuccessfully, how far the assertion is correct, of the true jalap having been found native in Georgia and Florida—and hope that this communication may lead the physicians of those states to investigate the subject fully; the leading particulars of which they will find in the Dispensatory, in a letter from Dr. BARTON to the late Dr. DORSEY. The details I have here given, together with the delineation of the plant in all its parts, will enable them, I trust, to decide the question. If it be so, unquestionably a source of export is opened to those who may choose to pursue its cultivation, and render us at the same time no longer tributary to a foreign market. If, on the contrary, it should not be found to be a native, my own experience warrants the belief that it may readily be naturalized, even in latitudes far more northern. As far as my researches go, I am of opinion, that the plant is not a native; but that the *mechoacana* has been mistaken for it—for the character of the plant, as given by Persoon, by no means answers to that which I have now, for three years, successfully cultivated; and which, coming directly from its native soil near Xalapa, cannot be considered in any way ambiguous.

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[*] This appears rather the result of desiccation—for when fresh taken from the earth, it is not more so than the potatoe. Mr. N. had the opportunity of seeing it only after it had been some time exposed to the air. C.

[†] This was the case in the tuber examined by Mr. N. but the engraving will show, that, as in the potatoe, there are many eyes from which these fibres are transmitted, often as thick as a quill, and from which, in various places, proceed the radicles that nourish the plant. C.

[‡] Rather reddish when fresh—Mr. N. having the opportunity of only examining the dry stalk. C.

Mr. Nuttall writes to me "the root of the *Ipomœa*, supposed to be *I. Jalapa*, which you have introduced from Mexico, and which I received from Mr. Dick, was planted in a flower-pot, and plunged in the open soil. On the approach of last winter, the pot was taken up to be protected in the green-house; part of the root, however, had penetrated through the pot into the ground: this small portion withstood the severity of the season in Cambridge, (Mass.) and grew and spread with vigour during the present season, so that the plant may be considered perfectly hardy."

In the Periscope of the present number, department Materia Medica, will be found a notice of a supposed new species of jalap, by Mr. Ladanois, but which will, we think, prove to be the *mechoacana.*

Explanation of the Plates.

Plate I. Fig. 1. The plant winding round its support.

a. A full expanded flower of the natural size.—Connected with it *(aa.)* is seen the germen and pistillum of another flower, the corolla of which had fallen off.

b. A bud nearly on the point of expanding, with another less advanced.

c. Three buds of different sizes—all proceeding from one common footstalk connected with the stem—each, however, having a separate one of its own.

d. A leaf as it appeared on the plant of 1827—cordate—but varying much from the leaves in 1829—upper surface.

e. Leaf of the plant in 1829—upper surface.

f. Leaf of the plant in 1829—lower surface.

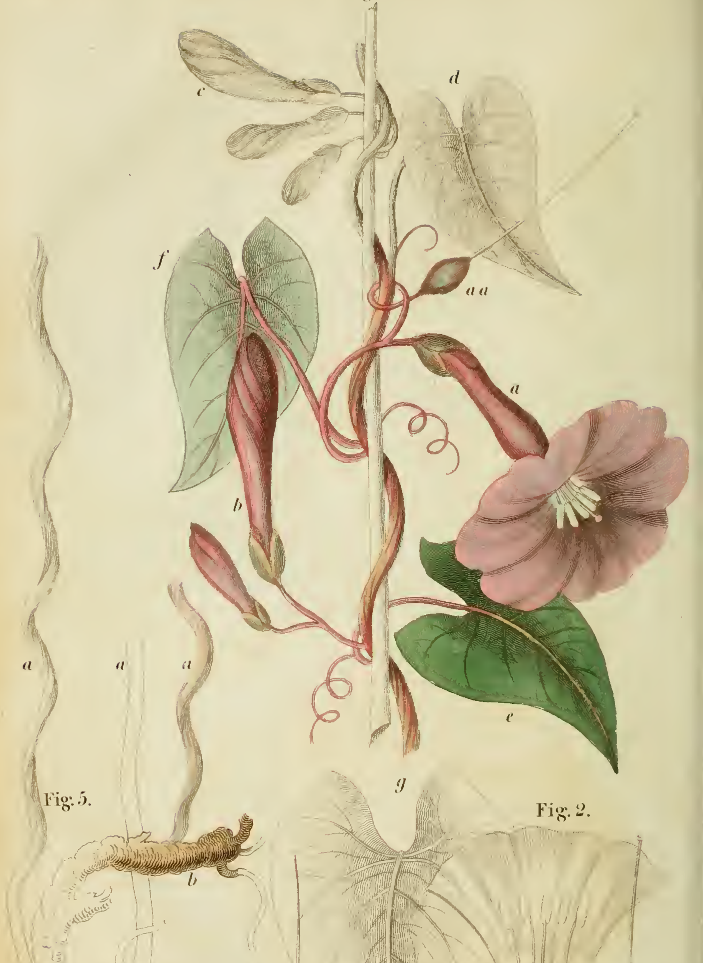
g. Leaf separate—of largest size.

Fig. 2. The flower divided longitudinally, and opened, to show its five stamina.

Fig. 3. The pistillum and its capitated stigma, together with the calyx.

Fig. 4. The pistillum, showing its junction with the germen, in an unexpanded flower, after removing the calyx.

Plate I. Vol. V.



IPOMŒA JALAPA
VEL MACRORHIZA.

Plate 2. Vol. V

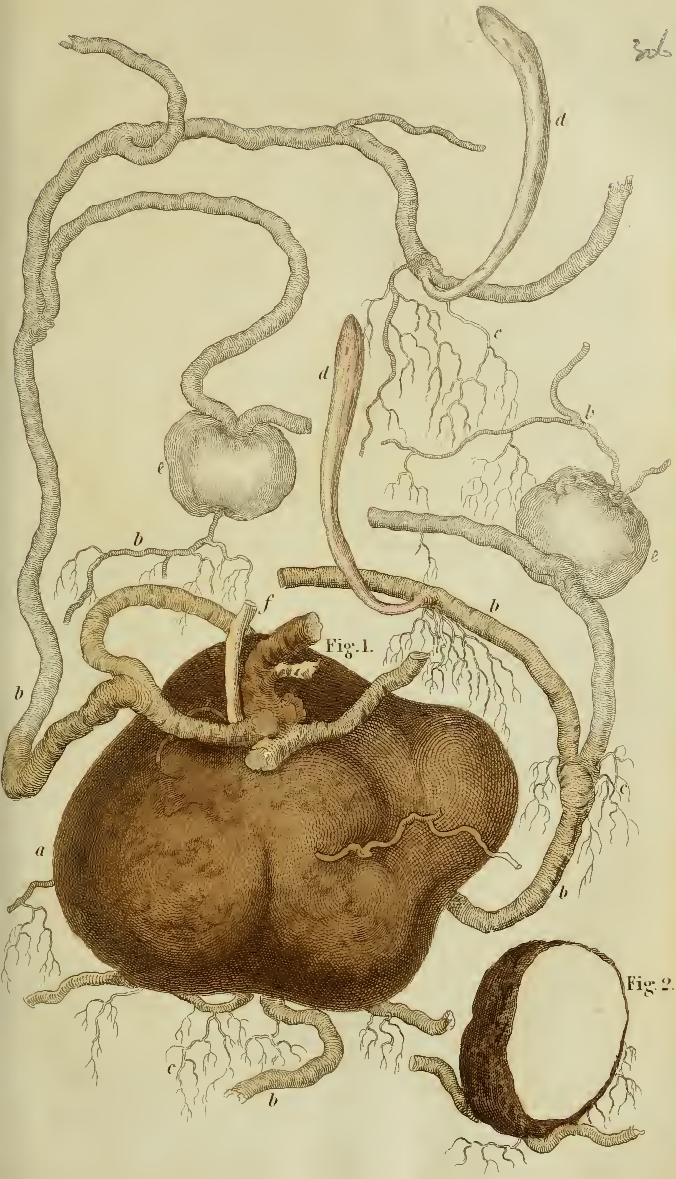


Fig. 1.

Fig. 2.

Fig. 5. The stem as it issues from the earth, showing its connexion with the stolones springing from the tuber.
- *a.* The stem.
- *b.* Stolones, or suckers.
- *c.* Tuber in outline.

Plate II. Fig. 1. *a.* Tuber—third year's growth—natural size.
- *b.* Stolones arising from the tuber.
- *c.* Radicles sent off from the stolones for the nourishment of the plant.
- *d.* Small shoots from the stolones, about to emerge from the earth.
- *e.* Small tubers from the stolones of this year's growth.
- *f.* Stem.

Fig. 2. A tuber cut in half, in order to show its internal white appearance, when fresh.

ART. IV. *Case of Successful Excision of the Cervix Uteri in a Scirrhous state.* By JOHN B. STRACHAN, M. D. Reported by THEOPHILUS FIELD GILLIAM, M. D. of Petersburg, Virginia.

MRS. M. H. ætat. 33, of the county of S. the mother of a fine son, had been treated since September, 1828, for menorrhagia, and the symptoms being more aggravated on the 2d of June, 1829, the reporter was requested, for the first time, to visit her. The hæmorrhage was extremely severe, attended with pains in the loins; pulse very feeble and frequent; countenance pale, sallow, and somewhat œdematous; great muscular debility, and emaciation of the body. The case appeared so critical from the frequent faintings, &c. that it was necessary to employ every remedy to stay the further loss of blood: sugar of lead, ipecacuanha, and opium, were freely used, with applications of ice water to the back, also the tampon, and astringent injections—the most useful of which was a strong decoction of red oak bark and alum. The visit was repeated on the 7th, and the discharges of blood had considerably lessened; but her situation continued so precarious as to forbid any special examination into the condition of the parts diseased. When the urgent symptoms had been removed, an alterative course of blue pills, with mineral and vegetable tonics, was recommended. Her health improved, and there were longer intervals between the attacks, which became milder, particularly after the application of a blister to the back. On the 20th of August she was visited for the third time, the distance, and other engagements, having rendered it very inconvenient to see her more frequently. The debility had continued to such an extent as to confine her to bed, and there was only a slight amendment of her general health, although the loss of blood had not lately been excessive. There was considerable irritation, and frequency of the pulse, which led the reporter to propose an examination to ascertain the state of the uterus, which resulted in discovering extensive scirrhus of the cervix uteri with additional fungous growth. His friend, Dr. John B. Strachan, attended in consultation on the next visit, when amputation was determined on, after a candid statement had been made to the patient. She was brought to Petersburg on the 4th of September.

About 1 o'clock, P. M. September 9th, 1829, Dr. John B. Strachan, whose skill, dexterity, and intrepidity, as a surgeon, are well known in Virginia, proceeded to perform the operation. The patient was placed on a narrow table, which was covered with blankets, her head sufficiently elevated by pillows, and her legs flexed, separated, and well supported by assistants. The operator then introduced his left hand, and seized the diseased part of the uterus, which, without the aid of hooks, was easily drawn down nearly as low as the os externum. The state of extreme relaxation of the parts, facilitated, in a great degree, this part of the operation. At this stage we ascertained the extent of the scirrhus, and Dr. S. with a scalpel readily extirpated the cervix, and about one-third of the body of the uterus. A curved bistoury was tried, but proved greatly inferior to the common scalpel. During the operation a large artery was cut, but the hæmorrhage lasted only a very short time. The hand was again introduced, and satisfied us that the knife had not penetrated any of the adjoining cavities. Common lint was applied to the parts, and the patient removed to bed. It should here be remarked that there was no occasion for the styptic lint and washer which had been prepared in the event of the hæmorrhage being excessive. Immediately after the operation severe uterine pains, resembling labour pains, came on, which at once arrested the hæmorrhage, and were so very violent as to require repeated doses of fifty drops of laudanum before any relief could be procured. A lukewarm infusion of chamomile flowers was directed to be injected in the vagina every six or eight hours. The parts extirpated, on examination, presented all the characters of the hard fibrous texture which usually precede cancerous affections. The fungous growth exhibited a raw, uneven, and rugged appearance at its anterior extremity.

10*th.*—The patient more composed, but complaining still of uterine pains, and a sense of soreness in the lower part of her belly, which, however, was not attended with any distention. Pulse feeble and frequent. Rest, low diet, and an anodyne, if much restlessness, were enjoined. Injections to be continued.

11*th.*—She is much worse. Pain and heat in the lower part of her abdomen, pulse very frequent, considerable nausea, and an aggravation of all the symptoms. A solution of magnesia, water, and salts, with the addition of lime juice, to be taken in state of effervescence, was directed every two hours until the bowels should be moved. Evaporating lotions were applied over the lower part of the belly: they allayed the sense of heat, and mitigated the uneasiness. When the medicines operated, the patient was much relieved.

12*th*, *et sequent.*—The case much improved and continued to convalesce, requiring occasional aperients, enemas, anodynes, &c. *pro re nata.* No discharge was observed from the vagina. An aphthous appearance of the tongue, fauces, &c. however, proved at first very troublesome to the patient. This symptom often occurs in the last stages of phthisis, hæmorrhage, &c. It resisted the usual remedies of sub-borate of soda and sulphate of zinc, but yielded readily to a solution of the chloruret of lime, in the proportion of one grain to two ounces of water. It removed the coagulable lymph which seemed imbedded in the ulcers, acting as extraneous matter to irritate. This was the first experiment with the chloruret of lime in these cases, and we mention its employment, so that it may be more fully tried in these obstinate and painful sores. We have witnessed some very distressing scenes where aphthæ have hastened if not caused death by impeding and preventing deglutition.

10*th of October.*—The parts were examined by Dr. Strachan, and the wound was found completely cicatrized, free from all hardness and any vestige of disease. The pulse has become more regular and soft, appetite and digestion improved, spirits much better, and her strength has increased so far as to enable her to sit up, and even walk about the room with assistance. There has been no return of the menstrual discharge. On the 15th she returned home, a distance of twenty miles, without injury.

This case is the more interesting, as it is, we believe, the first instance in which the operation has entirely succeeded in this country. The patient operated upon by Dr. J. C. Warren, died on the third day after the extirpation of a part of the uterus. Cancerous affections of this organ, until a few years past, were considered incurable, but Marjolin, Recamier, Dupuytren, Lisfranc, Hutin, and others, have demonstrated that they are not dangerous, admitting frequently of radical cures, many women after operations having been delivered of living children.

Art. V. *Observations on the Use of the Pyroligneous Acid in the Treatment of Gangrene, Ulcers, and Fungus Hæmatodes, with an Account of some Cases in which it was successfully employed.*

By Thomas Y. Simons, M. D. President of the Medical Society of South Carolina, and Physician to the Alms-house Hospital, Charleston, &c. &c.

In a late number of the American Journal of the Medical Sciences, the conductors have done me the honour of taking notice of my successful use of the pyroligneous acid, in sphacelus, and phagædenic ulcers. As I regard this remedy of great value to the surgeon, and have since 1824 used it with uniform success and satisfaction, I am induced to make a few remarks on the manner of using it, and to relate three cases, which were considered so desperate as to leave little hope of recovery, in which it proved efficacious. I beg leave to premise that I never read or heard of the acid being used for any other purpose than as an antiseptic in preserving meat, antecedent to my employing it, and I was led to use it from the fact of my believing that if it was so powerful on dead matter, it would be much more efficient when it was aided by the vital principle. Although long convinced of its value, I could not induce medical gentlemen in general to try it, they believing other established antiseptic remedies equally salutary if not superior, until the cases which I shall presently relate were brought so strikingly to their view.

There are two kinds of pyroligneous acid found in the apothecary shops; one is transparent, and when agitated, shows small crystals floating in it; the other is dark and smoky; both have the empyreumatic odour. The former is the kind I use, and is by far the best.

When I first used this acid, I diluted it with six times its quantity of water; but since I have employed it diluted with equal parts of water, gradually diluting as the sore assumes a healthy appearance, until it becomes as weak as one-twenty-fourth. It should always create a smarting sensation. The manner of applying it is to put over the ulcer some lint, which is to be kept constantly wet, and changed two or three times during the day, according to circumstances. The ulcer ultimately assumes red granulations resembling the inside of the pomegranate. If the acid be too strong, it will make it turn white, and assume the appearance of a slough.

Case I.—William Smith was brought into the hospital, May 9th, suffering under mania a potu. After he was relieved of this disease, I observed on the anterior part of his right leg a dark spot occupying about two-thirds, where a blister had been applied, as he informed me, previous to his entering the hospital. The commencement of mortification was evident, and I ordered him at first bark poultice, not having at that time the pyroligneous acid in the hospital, and the following constitutional treatment:—℞. Sulph. quinine, iv. grains; aq. fontana, ℥viij.; acid sulphuric, xx. gtts. Two table-spoonsful to be given every two hours during the day; at night he was given two grains of opium and five grains of camphor. He was allowed a pint of porter and a meat diet. This course was continued for two days, but without checking the gangrene; indeed it was so rapidly advancing, that several physicians were of opinion that immediate amputation would be necessary. Having, however, obtained the pyroligneous acid, I resolved to use it first; accordingly, I made free longitudinal and transverse incisions to the full depth of the gangrened portion, and then water and pyroligneous acid in equal portions were applied constantly in the manner already described, and the constitutional treatment was continued. In twenty-four hours a line of demarcation was formed, and in twenty-four hours more the gangrenous portion was separating from the healthy part. In seven days the whole of the gangrene was removed, and a healthy surface was presented. The acid giving pain was diluted to one-sixth, and ultimately to one-twelfth; and on the 26th September the patient was dismissed cured. The length of time of healing was produced. I think, from my omitting the acid after healthy granulations were formed, and using the adhesive straps.

Case II.—Edward Campbell, from St. John's, Berkely, South Carolina, came into the hospital on the 24th of August. He said that about Christmas he got a bruise on his shin which he neglected. It was afterwards quacked with by some old woman in the parish, until it assumed the character which I shall now describe. There was an extensive sloughing ulcer, deep, irregular, and jagged, extending from the lower portion of the tibia two-thirds upwards, exposing a part of the bone which was carious, and the tendon of the extensor longus digitorum pedis. The fœtor from the ulcer was so great as to induce me to remove the patient to a place separate from the other inmates of the hospital. My patient was extremely emaciated and hectic, and I observed to the medical gentlemen and students who were present, that I had no hopes of saving the limb, but that it was desirable to place him under constitutional treatment, so that I might improve the conservative principle of the system, (to adopt Sir G.

Blane's language,) previous to my amputating the leg, and that I would apply the strongest solution of the acid merely to correct the fœtor. The treatment was—℞. Sulph. quinine, vi. grains; acid sulph. xx. gtts.; aq. fontana, ℥viij. Two table-spoonsful every two hours during the day; at night two grains of opium to lessen irritation and procure sleep, which he had not enjoyed for some months. The diet was a pint of porter daily and beef-steak. In two days the fœtor of the ulcer was overcome. In ten days it was much improved, and I took away a large piece of bone which had exfoliated from the tibia. In four days more I removed with the knife a considerable slough of the tendon of the extensor longus digitorum pedis. From this time the ulcer began to improve rapidly, and healthy granulations appeared. This course was persevered in for some time with continued improvement of the leg, when my patient suffered it to be kept hanging down, causing the blood to determine and stagnate at the ulcer, when an extensive sloughing and gangrene commenced, (the acid having then been omitted,) which continued for three days, until the pure acid, (the brown and smoky one having been sent me by the apothecary, which proved inert,) was obtained, which checked its progress in twenty-four hours, and removed it altogether in a week. The patient was made to keep his leg elevated, and the acid was continued until Nov. 7th, at which time the leg has almost healed, and the acid is omitted.

Case III.—Charles Belton was brought into the hospital on the 13th of September, suffering from the effects of intemperance. I observed a red suffusion over his left thumb with considerable tumefaction; he complained of its giving him great pain; I ordered a poultice of milk and bread. This was continued for three days, when the inflammation increased, became more painful and tumefied; a fluctuation was felt as if there was matter, and there appeared to be a disposition to point over the second articulation of the thumb. I made a free incision, when very little matter escaped, but a great quantity of blood. On the next morning, I was informed that upwards of two pounds of blood had came from the wound, although I regarded this quantity as exaggerated. I found upon examination the wound had all the appearances of fungus hæmatodes. It spread out on each side of the incision like a mushroom, was fungous, very vascular, and oozing blood at every part. So formidable an appearance in so short a time left little hopes of relief but in removing the diseased part, which remedy is more than equivocal as regards success. It was, however, suggested to me by a medical friend, that as the pyroligneous acid had proved so valuable and efficacious in the other cases, whether it would not be worthy of a trial in a disease which has generally defied the power of remedial agents.* I readily consented, but with no hopes of success. The acid was applied in its strongest form, which in two days checked the hæmorrhagic tendency. In fifteen days the fungous character of the wound was subdued, when lunar caustic and adhesive straps were applied, which completed the cure on the 25th of October.

During the prevalence of yellow fever in Charleston, in 1824, I gave the acid much diluted internally during the black vomit stage, but with no benefit. I have no doubt it would prove salutary in putrid sore throats as a gargle, and it would be worthy of trial in cancer, in neither of which have I yet used it.

I have drawn up these cases and observations from a conscientious conviction that a proper use of the pyroligneous acid will be the cause of saving to many human beings limbs which otherwise would be cut off, and with the anxious hope that its use among surgeons may become general.

Charleston, S. C. Nov. 1829.

Art. VI. *On the Use of Tartar Emetic Ointment in Chorea, &c.* By Charles Byrne, M. D. United States' Arsenal, near Baltimore.

Since the period when the illustrious Jenner drew attention to the external use of tartarized antimony, and produced so many interesting cases in proof of its efficacy in the treatment of a variety of troublesome diseases, very little experience has been offered to the profession as a test of the value of the remedy, or the soundness of his speculations. All that has been offered, however, is well calculated to increase our confidence in its virtues, and to entitle it to a more extended trial.

In the eighth volume of the Medical Recorder, there is an account of a very extraordinary case of rotatio or chorea related by Mr. Hunter of Glasgow, as successfully treated by rubbing the ointment of tartarized antimony into the scalp and spinal column. In the thirty-third number of the same journal a case of chorea is reported by Dr. Wharton of Virginia, as cured by the same means.

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* I am not aware that there is another case of cure of this dreadful malady on record.

The two cases of chorea which follow are the only ones which have occurred in my practice since the remedy has been suggested; and in both cases the result has been highly satisfactory.

August, 1828, I was called to visit Amanda Shaw, ætat. 13, sanguine temperament, small of her age, but not delicate in appearance: menstrual period not yet arrived. The arm and leg of the right side were the principal seat of muscular irregularity, although there was scarcely a muscle of the body that was not occasionally more or less disturbed—even the tongue refused at times to do its office, and very often performed it in a very imperfect manner. Many of the intellectual faculties were much impaired, particularly the memory; and the countenance betrayed a vacant, stupid expression. The appetite was bad, the tongue foul, and the bowels irregular, generally costive. Her mother stated that she had been in her present situation, with little variation, for the last two years; that during this time no regular medical assistance had been sought, but that she had herself tried a variety of remedies as recommended in "Buchan's Domestic Medicine," particularly blisters and purging; but with no perceptible advantage. As the case seemed to be a fair one for the trial of Dr. HAMILTON's practice, I commenced the purgative plan, and continued it for two weeks, when the tongue became clean, and the bowels regular, but without any amelioration of the symptoms. I then gave tonics, decoction of valerian, and carbonate of iron; and finally touched the mouth with the blue pill, but was equally unsuccessful in all. I now prescribed the tartar emetic ointment, to be applied to the whole spinal column, from the atlas to the sacrum. I ordered two drachms to be rubbed in three times a day, until a plentiful crop of pustules should be produced. On the evening of the second day the eruption began to appear, and from that time to the present, the patient has never been affected with the slightest irregularity of muscular motion. Her mental faculties in a short time resumed their wonted energy, and her health was perfectly restored. From the perseverance with which her mother continued to rub in the ointment after the appearance of the eruption, her back continued very sore for four or five weeks, longer perhaps than was necessary for the removal of the disease.

CASE II.—May, 1829, I was called to E. Stansbury, a lad of twelve years old, good constitution, sanguine temperament, well grown. The symptoms in this case were in every respect similar to the first case. The patient had been labouring under the disease for nine months, during which time a great variety of remedies had been tried unsuccessfully by a medical gentleman of the neighbourhood. I immediately prescribed the ointment as in the other case, and with equal success, excepting that the right hand did not come entirely under the control of the will for twelve or fourteen days, but from that period there has been perfect immunity from the disease.

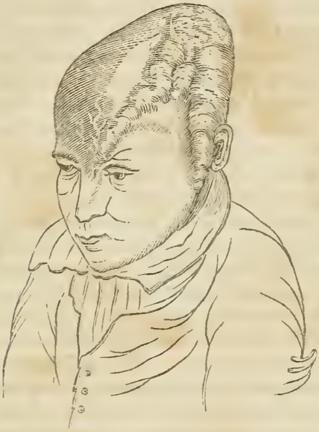
The following case of another description may perhaps be worthy of notice.

March 1st, 1829, I visited Sarah Leghorn, spinster, aged twenty-nine, labouring under acute pneumonia. This patient was tall, of delicate make, fair complexion, flat chest, and scrofulous family. From the preceding fall she had had a troublesome, hacking cough, pain in the breast, and occasional hæmoptysis. The most urgent symptoms were now speedily relieved by the usual remedies; but the cough, pain in the breast, and hæmoptysis continued as before; a deep, well-defined, hectic flush appeared on the cheeks, and all the symptoms seemed to threaten a confirmed phthisis. I prescribed the ung. tart. ant. to be rubbed in night and morning from the superior part of the sternum to its ensiform cartilage, (that being the seat of the pain and uneasiness,) until a plentiful crop of pustules should appear. I did not see the patient again for eight days, during which time she had persevered, (having mistaken my directions,) to rub in the ointment until the whole of the space over which it was applied presented the appearance of one immense scab, open, and discharging matter all round its circumference. The pain and irritation produced by this immense sore had deprived the patient of sleep for the last four nights, and her sufferings were such that on my entering her room, (notwithstanding a very mild temper,) she reproached me in the bitterest manner, for having treated her so cruelly. By the application of fresh cream and emollient poultices, the burning sensation was relieved, and by the assistance of an anodyne she got some sleep on the succeeding night. The sore went on to discharge very profusely, and was so painful as to confine her to bed for four weeks. Masses of fungous flesh shot up all over its surface, which required the free use of caustic; and although no means were adopted to keep it open, it did not entirely heal until October, at which time it left the patient entirely free from all her threatening symptoms; and from her own account, in much better health than she had been for years previously.

That an approaching consumption has been cured, or at least, suspended, in this case, by the use of this remedy, I have no room to doubt; but what *degree* of its application, short of the extreme to which it was accidentally carried, would have effected the same object, is a question of not so easy solution.

ART. VII. *Case of Aneurism by Anastomosis, in which both the Primitive Carotid Arteries were tied.* By R. D. MUSSEY, M. D. Professor of Anatomy and Surgery in Dartmouth College, Hanover, New Hampshire.

J. PATTEE, aged twenty years, consulted me in September, 1827, respecting a pulsating purple tumour, situated upon the vertex of his head, with a base of about five inches in diameter, and rising an inch and a half or two inches above the cranium. This tumour had existed from infancy, but had greatly increased within the last three years. Upon the apex of the tumour was a sluggish ulcer of an inch in diameter, which commenced two years before, had been slowly enlarging, and which had bled occasionally during the preceding spring and summer, and once to the amount of two quarts, as estimated by his physician.



The left temporal artery and vein where they pass in front of the ear, presented through the integuments the appearance of a vessel five-eighths of an inch in diameter. This was so prominent in its winding course along the temple, and even to the base of the tumour, that its pulsations could be distinctly seen at the distance of *fifteen* feet. A vein which passed from the tumour down the forehead, was full and prominent, and half an inch in diameter; and when the head was shaved, more than *twenty* arteries running to the tumour were seen actively pulsating, none of which, as they appeared through the integuments, were less than a middling-sized goose-quill.

Curious to know what would be the effect of securing the large arteries, from which branches were distributed to the tumour, I tied on the 20th of September, the *left* primitive carotid. The tumour, after the operation, was a little less tense, and less livid; still the active pulsation of the numerous arteries upon the right side of the base of the tumour, rendered it evident that there was an adequate supply of blood. On the twelfth day from the operation I tied the *right* primitive carotid artery. The face was a good deal paler immediately after this operation, but what was scarcely to have been expected, the functions of the brain were not apparently disturbed. There was neither nausea nor faintness; the patient rose from the table, stood up, and while standing put on his vest and coat, and tied on his cravat; he then walked down two flights of stairs, got into a carriage, and rode to a distant part of the village, without feeling the least symptom of faintness, or manifesting signs of inconvenience.

The tumour, which after this operation, was daily dressed with a compress and bandage, so as to make slight compression upon it, the compress being kept constantly moist with alum water, progressively subsided, and in about four weeks was reduced apparently to about one-third of its original volume. At this period the tumour became stationary, and in five or six days began very slightly to enlarge; its colour was a little deepened, and a feeble thrill corresponding with the pulse in other parts, could occasionally be perceived in the left temporal artery. These appearances indicating that nothing further was to be expected from the tying of the carotid, astringent applications and compression; I proceeded on the 22d of November, about six weeks from the second operation, to remove the tumour.

This was accomplished by first encircling the tumour by an incision made quite through the soft parts, and then rapidly dissecting away the whole mass from the pericranium. More than an hour was occupied in carrying the knife around the base of the tumour, the whole operation being conducted with immediate reference to the saving of blood. Not more than an inch and a half of the scalp was divided at a time, and immediately upon the division, firm compression was made upon each lip of the incision, while the vessels were secured by ligatures, more than forty of which were applied in going round the tumour. Notwithstanding, however, these precautions, it was estimated by all present, that blood to the amount nearly of two quarts was lost during the operation. The patient was faint, and continued very feeble for several hours. The naked pericranium, in extent equal to about twenty-five square inches, granulated kindly, and in eight weeks the wound was nearly healed. It was some months, however, before the cuticle, through its whole extent, became firm, so as to sustain itself under considerable variations in the state of the circulation. The patient returned to active labour upon a farm the following March or April, has continued it ever since, and has been one of the most athletic and industrious labourers I have seen.

This case is interesting in a physiological view, for at no period subsequently to the operation of tying the second carotid, with the exception of the faintness and debility which occurred from the actual loss of blood on the removal of the tumour, has there been a single symptom of deficiency of blood in the brain. Indeed, at one period, viz. in the spring of 1829, sixteen or seventeen months after the operation, the opposite state seems to have existed; as the patient had a flushed face, accompanied with head-ache daily for two or three weeks, and was not relieved essentially by cathartics. A single large bleeding entirely removed the symptoms.

The engraving represents the appearance of the tumour after the head was shaved, previously to the first operation.

November 24th, 1829.

ART. VIII. *Extraordinary Case of Intus-susception.* By LEVI GAYLORD, M. D. of Sodus, New York. (Communicated in a letter to A. W. IVES, M. D. of New York.)

AT your request, I send you the following account of an extraordinary case of intus-susception.

In the month of October, 1827, I was called to the house of the Rev. William Stone, of this town, to attend on his grandson, William Henry, then about six years of age. His first symptoms did not indicate a very severe attack. A cathartic was administered, which operated readily, and with apparent efficacy. On the following day he began to complain of pain in the bowels, attended with considerable fever, which continued with increasing severity for two or three days, until nausea, stercoraceous vomiting, and the usual symptoms of the most obstinate constipation, or intus-susception, were distinctly prominent.

Bleeding, blistering, cathartics, often repeated, beginning with the mildest castor oil, Epsom salt, followed by jalap, calomel, croton oil, &c. with enemata frequently administered, (two or three occasionally of tobacco,) and Dr. HOSACK's emetic process, with the warm bath, were severally and unitedly resorted to, and persevered in, under my personal direction and inspection, for about four days.

The acuteness of the pain, the intensity of the heat, together with the accelerated pulse, reddened, shrivelled, dark furred tongue, and great prostration of strength, indicating a tendency to putrescency, left us scarce a shadow of hope, that the termination of the case could be favourable.

In about four or five days, an evacuation was procured, of a dark briny appearance, somewhat of an indigo tinge, followed by a speedy mitigation, and soon by an entire alleviation of all the alarming symptoms.

This discharge was succeeded by one or two rather copious discharges, exhibiting nearly the same appearances. The evacuations soon became natural, the bowels open and regular, the febrile symptoms disappeared, the tongue cleared, the appetite returned; in short. the whole system appeared with unwonted rapidity to resume its ordinary functions, and place him in a most favourable and convalescent state.

In a little more than two days from the opening of the bowels, I believed and declared my patient out of danger, and left him without any appointment to see him again, but the next morning was summoned to attend him, as his symptoms were materially worse, and "an astonishing appearance presented itself from the bowels having come down."

I immediately repaired to the house, and found a portion of the intestines protruding in two doublings or folds of several inches in length. Most of the intestine thrust out, was in a state of incipient mortification; some more advanced in the putrifying process; and other portions exhibiting a nearly natural appearance. In this state I should not have thought that any person who had ever seen or handled an intestine, would have doubted whether this were such. I immediately gave up the patient for lost, and notified the family of what I considered the inevitable result. I however applied a poultice of charcoal and yeast to the part, directed a saturated decoction of cinchona, and also brandy, to be administered as the stomach would bear, and nourishing broth to support him while he lived.

In about twenty-four hours, the protruded portion of the bowels sloughed off; it measured twenty-three inches in length, exclusive of about three inches contained in a fold, which adhered too firmly to be detached or extended, and which I supposed had formed the origin, and laid the foundation of the difficulty and obstinacy, developed in the progress of the disease.

That it was not the internal membrane of the bowels which was thrown off, appeared to me evident, from the thickness of the part which appeared in this respect natural; from its being whole and entire, with a continuous canal through its whole length, with occasionally some small erosions, which appeared to be made through the outer and not through the other coats of the intestines; distinctly discovering, as I thought, more than one coat to the part thrown off; but more certainly apparent from the fact, that I suppose it impossible for the internal coat to be separated, and yet retain the fold or doubling of the bowels, perfectly adhering and growing together, as was this, (admitting a separation so long and entire might take place under some circumstances,) an admission which I think taxes credulity itself, beyond sufferance. Certain it is, that it could not have been thrown off, with the adhesions, and in the form in which it was examined; and it seems equally improbable that adhesive inflammation could have taken place after the separation. But I do not feel either called upon or competent to enter a defence of an opinion, which has been perfectly satisfactory to myself, and shall only vouch for the correctness of the facts set forth, leaving it for others more at leisure and better qualified than myself, to make their deduction and form theories as philosophical or hypothetical as they please.

After the separation of the detached portion of the bowels, passages were procured, though with considerable pain and difficulty. The evacuations put on much the appearance of the fermenting wash in a distillery. Digestion was very imperfect; emaciation to an extent but rarely witnessed ensued; and the assimilating powers of nutrition were so feebly maintained, that the lamp of life gleamed feebly in its socket, and was momentarily threatened with entire extinction.

In this state he continued with little alteration for several weeks, when a novel and interesting feature of the complaint was gradually developed, until it became the prominent characteristic of the case.

The pain which had been pretty constant, gradually became periodical, until it assumed all the regularity of parturient pains, it its returns, varying from five to fifteen minutes between each successive paroxysm. The voice also was precisely of that kind which distinguishes such pains, uttering those cries which indicate the most piercing distress, and which might be heard to a considerable distance from the house. Each paroxysm lasted about a minute and a half, and was succeeded by an interval of perfect ease. On the return of each pain, the abdomen which before was jejune and contracted, suddenly grew distended and inflated, discovering through its thin parietes, every movement and tortuous winding of the intestinal tube, each portion of which seemed endeavouring to force its way through the thin teguments which enclosed it, and exhibited a tympanitic hardness and tenseness, seldom witnessed in the most obstinate diseases of that kind, but which instantly and entirely subsided in exact ratio to the pain.

This distressing symptom was treated, during some weeks, with antispasmodics, anodynes, blistering, fomentations, and gentle cathartics, with every means which I supposed might enter into a palliative or curative course of treatment. At length I resolved on a mercurial course, notwithstanding the extremely low state of the patient, and to my great satisfaction, this troublesome and distressing symptom subsided, as soon as I had carried it to the point of gentle and moderate salivation.

Health was gradually restored, and at this date, (about two years since the period of the attack,) my former patient is a tolerably healthy lad, subject, however, more than ordinarily, to attacks of colic and other bowel complaints.

Sodus, N. Y. Sept. 29, 1829.

Art. IX. *On the Climate and Diseases of Washington County, Ohio.* Read before the Twelfth Medical Society of Ohio, at their Semi-annual Meeting, in Athens, November 3d, 1829. By S. P. Hildreth, M. D. President of the Society. (Communicated for this Journal.)

THE County of Washington is bounded on the north and north-east by Morgan and Munroe Counties; south-east and south by the Ohio river, and west by Athens County. It is forty three miles in length, from east to west, and twenty-two miles in breadth, from north to south, becoming narrower at the eastern extremity. It contains about six hundred square miles, and a population of eleven thousand. The face of the country is uneven and broken, affording but few tracts of level land, remote from the borders of the streams. The inhabitants are mostly from New England, or descendents of New England parents, and still retain their habits of morality, industry, and frugality. The dwelling houses are generally good and comfortable, being built either of bricks, frames, or hewed logs, and contain most of the articles necessary either for health or convenience. Since the first settlement of the county, in the year 1788, great improvements have been made, not only in clearing lands, but in planting orchards, and constructing highways and bridges. The soil, though broken, is fertile, producing all the crops of the climate in abundance. Not more than one-eighth of the land is yet under cultivation; the balance is covered with forest trees; the hills principally with the different varieties of oak, and the bottom lands with beach, sugar maple, and sycamore. From a deficiency of springs, the streams of water become low in summer. The water is impregnated with carbonate of lime, and is what is called hard; in the uplands, it is obtained by digging from twenty to fifty feet—in the Ohio and Muskingum bottoms it is found at about forty feet, and is generally pure and pleasant.

The county is situated in latitude 39° 25′, N. and longitude 4° 28′, west of Washington City. The climate, however, is milder by two degrees, than the same parallel east of the Alleghany mountains. This difference may be in part accounted for from the general prevalence of southerly and westerly winds, and from there being no high lands in that direction, to reduce the temperature of the air. The soil also being of an argillaceous and loamy quality is more retentive of caloric than a gravelly and rocky soil. The mean annual temperature is about fifty-five degrees of Fahrenheit; while the same parallel, east of the mountains, is about fifty-three degrees. The temperature of our deepest wells, corresponds with the mean thermometer. The temperature is subject to extreme variations, but they are of short duration; very cold or very hot weather continuing for a few days only. The thermometer has been known to rise to 99½° in summer, and to sink to 22° below zero, in the winter, making a range of 121°. Tuesday, the 3d of February, 1818, the snow fell to the depth of twenty-six inches, and lay on the ground for two or three weeks. The 10th of that month, at half past six o'clock in the morning, the thermometer sunk to 22° below zero; on the 9th it was 20° below; and by the 12th the weather was quite mild—a thick vapour, like steam from boiling water, arose from the Ohio river, which was full of floating ice; this vapour soon congealed and fell in large flakes of snow all over the low lands near the river, affording the novel spectacle of a shower of snow from a clear sky. Nearly all the peach trees were killed to the surface of the snow, and were cut down the following spring. Many trees and shrubs of the forest perished with this unusual degree of cold. In common winters, the thermometer does not fall to zero, and seldom so low as to destroy the embryo buds of fruit trees.* From an average of four years, I find there are fifty-four days in the year on which the mercury falls below 30°, and seventy-nine days on which it rises above 80°. The hottest part of the day in summer is between three and four o'clock, P. M. the coolest, just before sunrise. The coldest month is January; but the greatest depressions of temperature are in February, as in this month we usually have the deepest falls of snow. Our snows are generally but a few inches in depth, and lay on the ground but a few days: the greatest falls are commonly with wind at the north-west. In cold and dry winters, our rivers are obstructed and sometimes closed with ice; but if the winter is wet, the rivers remain open and sometimes entirely free from ice. From the fore part of April to the last of May, we usually have delightful and serene weather. In October and part of November, the weather is mild and fine; in April, untimely frosts often blast the fairest prospects for fruit, while the trees are in full blossom. The hottest month is August, but the thermometer rises highest during the last of June or fore part of July—thus, on the 11th, and 12th of July, 1818, the mercury stood at 99° in the shade, and at 138° in the sun. The hottest days are often followed by cool nights; and there are few days and nights in which the heat is nearly equal. The morning is comparatively cool in the hottest season of the year; probably owing to the humidity of the atmosphere absorbing the free caloric, and descending in dews and fogs; the fogs being confined to the valleys and neighbourhood of water courses. From the vast extent of our forests, covering at least three-fourths of the country, the air must necessarily be more humid than in countries nearly or wholly denuded of trees. The great abundance of forest trees, is doubtless the cause of the greater humidity of the atmosphere in this county, than in the same parallel east of the mountains, especially in Pennsylvania. The quantity of rain which annually falls there, varies from twenty-four to thirty-six inches; while here, on a calculation of eight years, the depth of rain is from thirty-six to fifty inches; the mean depth for that period being forty-three and a half inches. This great humidity of the atmosphere, and long-continued heat of summer, acts on the human frame much like a tropical climate; causing languor and a general debility during the warm months; lessening the muscular powers both of man and beast, and producing fatigue in performing the same amount of labour that may be executed with ease in a dryer atmosphere. In continued moist or wet weather, with the temperature through the day between 80° and 90°, the air is like a vapour bath, and opens the pores of the skin nearly as freely. The air is at the same time more rare, rendering respiration more difficult and laborious, especially in the asthmatic and debilitated. Of the rarity of the atmosphere, we have additional proof in the depressed state of the barometer. East of the mountains, at the same or nearly the same elevation above the level of the ocean, the mean height of the barometer is 30 inches; while in Washington County, the mean height is only $29\frac{10}{100}$ inches. Its range, in the three years

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* It has been ascertained that 6° below zero, will kill the fruit buds of the peach.

I have noted its fluctuations, has been $1\frac{50}{100}$ inch. In the coldest and dryest weather it has risen to $29\frac{70}{100}$ inches; and in storms of wind and rain, it has sunk to $28\frac{20}{100}$ inches. Our seasons vary considerably as to the distribution and quantity of rain; some being more than usually wet, and others uncommonly dry, but never so much so in either extreme, as to destroy all the hopes of the farmer. More injury is sustained from too much than too little rain. It generally rains in gentle showers, and we have seldom those terrible tornadoes which bring devastation and ruin in their train, and which occasionally visit the country east of the mountains. With thunder storms in the summer we sometimes have heavy rains, and much hail, especially in the month of June; but they are rare in this county; and for the past twenty-two years, we have not been visited by one of those tremendous tornadoes which have sometimes visited other parts of the state, sweeping away the strongest edifices like feathers, and scattering the trees of the forest like dust; displaying the power of the Almighty, and the weakness and imbecility of man, in the most awful and impressive manner. In seasons of drought, it has been observed, that when a cloud arises charged with rain, it follows the course of the larger streams of water; dispensing its humid treasures on the bottoms and lands adjacent, but withholding them from the parched and more needy uplands; this is probably occasioned by the ascent of the vapours from the water courses, meeting the humid air of the cloud, and conducting the rain to the earth, or to the formation of rain clouds only in their vicinity. February, April, June, and July, are the months in which there usually falls the greatest quantity of rain, and in January, August, September, and October, the least, although there are exceptions to this rule in some years. The prevailing winds are from the south, south-west, and west; but we have many days in the winter and spring with the winds from the north, north-west, and east. After rains in summer, the wind generally blows from the north, producing a refreshing coolness, and imparting vigour to the enfeebled frame, and I have noticed that our most healthy seasons are accompanied with northern breezes after showers, and in the most sickly, that the wind has still continued from the south. Should the summer months prove very wet and warm, fevers are more common; if very dry and warm, dysentery and diarrhœa predominate. Sudden changes from heat to cold, in August and September, often produce disease, while earlier in the season, before the body is debilitated by the heat of summer, the change is passed without any apparent harm. December, May, and June, are the most healthy months, and February, March, August, and September the most sickly.

From the foregoing history of our climate, we shall be led to expect some of the diseases both of the tropical and of the arctic regions; accordingly we sometimes meet with the malignant fever of the south in the summer, and the pneumonia and pleurisy of the north in the winter; though happily for us they neither of them prevail as an epidemic. Since the first settlement of the county, many of the diseases have changed their type and character; from the year 1788, the year in which the Ohio company took possession of their purchase, to the year 1807, most of the diseases originated in exposures to wet, cold, hunger, and fatigue, and were generally of an inflammatory nature; such as rheumatisms, pleurisies, peripneumonias, scarlatina, and small-pox. Ophthalmias were also common, and sometimes epidemic. For the first nine years the inhabitants made but little progress in clearing the lands of the gigantic forests which covered the bottoms of the Ohio and Muskingum rivers. The greater part of their time was occupied in building garrisons, stockaded, and block-houses, and watching the movements of the Indians; sometimes their lives were in danger from famine, and sometimes from the rifle and tomahawk of the savage. In the spring and summer of the year 1790, the inhabitants suffered severely from want of wholesome food—very little land had yet been cleared fit for planting, and a severe, and untimely frost in September of the preceding year, having destroyed, or greatly injured the crops of corn at the head waters of the Ohio river, the settlement came near being ruined and broken up; and the Indian war commencing the next year, they still continued to suffer much from want. The savages killed, and drove away many of their cattle, and, continually lurking about the garrisons, prevented the hunters from obtaining a supply of venison and buffaloe, which at that day were more numerous than the domestic cattle at this. In this season of want, I have heard some of our present inhabitants, who were then children, relate with what anxiety from day to day they watched the tardy growth of the corn, beans, and squashes; and with what rapture they partook of the first dish prepared from vegetables of their own raising. The sufferings of the colony would have been much greater, but for the wise and liberal policy of Mr. Isaac Williams, who had raised a fine crop of corn, on the Virginia side of the Ohio river, opposite to Marietta, the year before their sufferings commenced. This corn he distributed at a low price, when it would have commanded dollars per bushel, dividing to each family according to their numbers, and when they had no money, selling on credit till they were able to pay. To counteract the depressing effects of want and anxiety on the mind, as well as the body, all kinds of amusements were encouraged by the colonists amongst the young people, especially foot-races, games at ball and dancing, and some of the young females had become so habituated to danger, that nothing pleased them better than a sudden alarm that the Indians were about to attack them, as the confusion and bustle of such a crisis, gave a different train to their thoughts, and a relief to the sameness of a garrison life. This volatility of spirits, I have no doubt, preserved the early inhabitants from many attacks of disease and death. In this period of time, while confined to their block-houses, the settlement at Belprè suffered much from small-pox and scarlatina—many children died; some families lost three or four—the diseases was malignant, and very fatal. Fevers of the remitting type were unknown, or very rarely seen so long as the country was wholly covered with forests. The aborigines were subject to few diseases, and those of an inflammatory nature; produced by their exposures to the vicissitudes of the weather, and unwholesome diet; but were nearly, or altogether, strangers to most of the diseases now common in this country.

Between the years 1797 and 1807, extensive clearings were made, and large tracts laid open to the influence of the sun. Mill-dams were built, and abundant sources for the origin of intermitting and remitting fevers created in the half-cleared lands, undrained swamps exposed to the summer sun by cutting away the trees which preserved them harmless, while shaded by their broad branches, decaying timber and weeds of the most luxuriant growths—all these combined, began to produce disease; and as autumn approached, many pale faces were seen amongst these hardy children of the forest. But the disease was seldom fatal; and a few simple remedies, with a more plentiful and nourishing diet, aided by the invigorating breezes of winter, soon restored their strength.

Phthisis pulmonalis, at this early period, was a disease nearly, or wholly unknown; the invigorating effects of constant exercise, exposures to all kinds of weather, a simple, but nourishing diet, and the enlivening faculties of the mind kept in continual play, forbade the approach of this scourge of indolence, and the refinements of modern fashions. Very few cases of it occurred until after the year 1808—and these did not average more than one death a year in a population of two thousand. Since the years 1815 and 1816, when pneumonia typhoides was so prevalent, consumption has been gradually increasing, and at this time the average annual amount of deaths is about two in a thousand inhabitants. Some part of the winter preceding the great epidemic of 1807, was remarkable for the severity of the cold. In February, after the fall of a few inches of snow, the Ohio river was frozen across in one night so as to bear the weight of loaded wagons the next morning. The ensuing summer was very wet and warm, and was for many years remembered as by far the most sickly of any since the settlement of the county. This epidemic ravaged the borders of the Ohio river from its mouth to near where it leaves the hilly country of its source. The settlements back from the rivers and creeks were as healthy as usual. In February and March of that year, many cases of pneumonia and catarrh appeared, as is most commonly the fact after severe cold. In June an epidemic ophthalmia prevailed, more especially amongst the children. The Ohio river was at full banks three times in the course of the spring and summer, leaving the low grounds in the bottoms covered with standing water. Much hay and grain were lost from the continual rains in harvest. In July intermitting and remitting fevers began to appear, and by the middle of September, scarcely a family, near the river, for the extent of this county, escaped disease. It was attended with rather a depressed, than excited state of the system, and few of the cases needed, or were benefited by bleeding. But frequent purges, with a free use of bark and alkalies, were generally successful in arresting, and in curing the disease. Cool and frosty nights in October and November put a stop to the epidemic. In October of the same year, influenza reached us in its progress from the east, where it began in August and September. By the first of November it had passed away, visiting nearly every family in the state of Ohio, and western country generally. In December a number of cases appeared with all the marks of a common pleurisy, but would not bear bleeding, and were cured with blisters, and a general stimulating and tonic course. The following winter was mild, and the summer months marked by no prevailing disease. From 1807 to 1813, the county was generally healthy; what few fevers appeared were mostly typhoid. Bilious colic for several years after the epidemic was a very common disorder; it generally gave way to large doses of calomel and opium, and free bleedings. One physician told me he had given half an ounce of calomel at a dose with fine effect; I have seldom found it necessary to use more than two drachms. Phthisis pulmonalis had become more frequent since the influenza, but was still of rare occurrence. In the summer months cholera infantum was common, and frequently fatal. In 1810 and 1811, an epidemic rabies appeared amongst the dogs, wolves, and foxes—many domestic animals were bitten and died rabid—several persons were bitten, but I do not recollect of any death from this cause; the use of timely remedies doubtless preventing—such as scarifying and cauterizing the part bitten, and pouring over it a large quantity of warm water, slightly alkalized. One case came under my notice, attended with all the symptoms of hydrophobia, which was cured by a free use of calomel and cantharides, producing ptyalism and strangury in a few hours. In 1813, 1814, and 1815, typhus fevers were common in the summer and autumnal months; scarcely a case of purely bilious remitting or intermitting fever appearing in all that period from 1807 to 1817. Pneumonia typhoides was very common in the eastern states, or "spotted fever," as it was then called, in the years 1812, 1813, and 1814—but did not reach this county till the winter and spring of 1815 and 1816. Unusually cold winters had preceded the disease in the eastern states, the debilitating effects of which were supposed to have been the predisposing cause of the disease. The winters with us being milder, the disease was of a modified character. However, in the winters of the years last named, many cases occurred in the townships of Roxbury, Salem, and Fearing. The disease mostly appeared on the high lands, and rarely in the bottoms; it was fatal in many instances, but more especially so in Roxbury. It caused great fear and dread amongst the people, from its mortality in the eastern states; and even the name of "cold plague" caused the heart to sink, and the tongue to faulter. Some light having been thrown on the subject by writers in the periodicals of the day, and being governed in the treatment more by the symptoms than the name of the disease, most of the cases were under the controul of medicine that appeared in this vicinity.

From the year 1817 to 1822, no general epidemic prevailed; the fevers of summer were mostly of the typhous type, and in the winter months inflammatory. The summer of 1821 was quite sickly in some parts of the county, so that there seemed to be a change taking place in the atmosphere preparatory to the great epidemic of 1822 and 1823. These years will long be remembered in the annals of the county as by far the most disastrous of any since its settlement. That of 1822 appears to have been aggravated by the very low, stagnant, and putrid state of the water in the rivers and creeks. The Ohio river, for two or three months, more resembled a long slimy lake, than the waters of a living and moving stream, while that of 1823 seems to have been increased by continued and excessive rains, filling all the low grounds with standing water. This fever was of all grades, from the mild intermittent to the malignant yellow fever. In those two years this county suffered a loss of not less than four hundred lives. So general was the sickness of 1823, that at the general election in October, for state officers, the county gave but three hundred and ninety votes out of twelve or fourteen hundred usually given.* The year 1824 was comparatively healthy, though there were many cases of measles, scarlatina, and chicken pox, a class of diseases which often precede or follow great epidemics. Enlargement of the spleen was very common for one or two years, in persons who had suffered much from intermittents. From 1824 to 1829, the county has been generally very healthy. Since those great epidemics, dyspepsia and a diseased state of the liver has been more common than formerly, and frequently in persons who had escaped an attack of the fever, indicating that the latent cause of the epidemic pervaded the system of every one, showing itself subsequently in derangement of the liver, stomach, &c. Dropsies and consumptions have also been more common than they were before the year 1822. Measles and hooping-cough generally make their appearance at intervals of eight and ten years. Scarlatina has visited us but twice in twenty-three years. Small-pox has been kept away by vaccination, which has been very generally adopted since the year 1809; at that period a few cases occurred at Waterford, and a pest house established; but a general vaccination taking place, the disease ceased, and has rarely been seen in the county since. Bilious colics are more rare than they formerly were. Calculous complaints are not common, probably owing to there being more distilled and less fermented liquors used by the inhabitants. Apoplexies and palsies are rare, probably from the same cause, as no people suffer more from these diseases than the inhabitants of Great Britain, who drink large quantities of beer and porter. In the winter and spring months, cynanche trachealis is very common amongst children under three years of age, who also suffer much from dentition and intestinal worms. That long train of nervous disorders, so common amongst the females of a more refined and luxurious society, has not reached us as yet, nor will it so long as they continue to nurse their own children, attend to their own domestic concerns, and in their dress, diet, &c. pay more respect to the dictates of nature than to the whims of fashion.

Rheumatism is a disease more common, but still rare, when compared with more northern countries. Scrofulous affections are more frequent than they formerly were, and will probably continue to increase as the county becomes more highly cultivated, and people more luxurious in their habits. An early decay of the human teeth is a complaint often heard; it generally arises from a diseased state of the gums, probably originating in a bad condition of the digestive organs. I have found it hard to remedy, and think it a subject worthy the attention of the medical faculty. Gout is a disease of much notoriety in many parts of the world, but as yet entirely unknown to the native inhabitants of this county. Parturition is effected here with as little suffering as in any of the middle or eastern states; convalescence is rapid, and in a few days the female, if healthy, is able to attend to her domestic concerns. Puerperal fevers are far less common than in more populous places. It has been often remarked that females who had long been barren, soon became the mothers of children on removing to the state of Ohio; but this probably arises more from the invigorating effects of the journey, than any medicinal quality in the water or air. Traumatic tetanus, or tetanus of any kind, is a rare occurrence; and in a practice of twenty-three years, I have not seen more than three or four cases. Diseases of the skin are very common; such as rashes, several varieties of psoriasis and herpes; and in the course of this spring and latter part of the winter, I have seen many cases of "*Dengue*," modified by the climate, but possessing all the characters of the disease, severe pain and swelling in the joints, preceded by high fever and eruption on the skin. It was by many called measles, and rash, but as often attacked persons who had passed through these diseases as those who had not. It was common, so far as I can learn, all over the western states.

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* A history of this epidemic was published in the Philadelphia Journal of the Medical and Physical Sciences, Vol. IX. page 105.

Marietta, Ohio, Nov. 1829.

Art. X. *Reports of Cases treated at the Baltimore Alms-house Infirmary.* By Thomas H. Wright, M. D. Physician to the Institution.

Case I. *Chronic Induration of the Stomach.*—Charles Murray, aged forty-three, tall, spare person, dark complexion, hair and eyes, entered the Alms-house infirmary, March 20th, 1829. Symptoms when admitted: Chronic pain of the stomach and bowels; pain remittent, and in some degree periodical, occurring chiefly towards night, always commencing in the stomach, and propagated to the bowels; borborygmus; the whole paroxysm resembling very much a fit of painter's colic. The sense of uneasiness in the stomach was nearly constant, but the duration of the severe intestinal pain was usually four or five hours, during which the patient would seek relief by change of posture, lying on his belly; the pain gradually remitted, leaving a sense of soreness in the bowels. There was no fever, the tongue clean, bowels slow, urine free, variable in quality, sometimes clear, often red, depositing urea in excess, occasionally much mucus.

The patient gave the following history of his case before coming to the Alms-house:—Three months before, while labouring on the Baltimore and Ohio rail road, he was affected by pain of the stomach, attended by vomiting after meals, and rapid waste of flesh and strength. In that state he entered the Baltimore Infirmary, and underwent various treatment, but having exhausted his means of paying the very moderate charge of that institution for board and medical aid, and his disease continuing, he came to the Alms-house.

The prominent symptom in this case was pain of the stomach, increased after eating, every mouthful swallowed causing uneasiness, and a sense of weight as of some heavy body in the stomach, and rendering it necessary to take food in very small quantity at a time, and slowly, with considerable intervals between each portion. There was neither difficulty nor pain in the act of swallowing. Some time after food had been taken pain of the bowels came on occasionally, though not often on first coming to the house, preceded by vomiting of thin glairy fluid. The external signs were tenderness of the epigastrium, with a point of some hardness, and particular sensitiveness to pressure, under the anterior portion of the left cartilaginous border, two inches distant from the end of the sternum; no hardness or soreness in any other part of the belly; great flatness of the abdomen, and extreme muscular tenuity every where. *Diagnosis.*—Chronic gastric irritation advanced to positive lesion; contraction and condensation of the stomach; disease of the urinary organs probably chronic nephritis, with congestive hypertrophy of one or both kidneys; contraction and thickening of the coats of the bladder.

This patient refused medicine, never taking more than one portion of any of the agents prescribed as palliatives of the gastric and intestinal pain. He had an occasional desire for particular articles of food, but took only small portions of nutriment, chiefly boiled milk and custard; he had no thirst, no inclination for wine or cordials of any sort. After he had been some weeks in the house, he vomited a little every day, chiefly a colourless, insipid, ropy matter; his bowels were always torpid, never acting without excitants, principally enemata; dejections small in quantity, but perfectly natural in appearance. The patient continued in this state five weeks, during which time emaciation became so great, that the tract of the abdominal aorta was defined, even to sight, by its pulsations; and the primitive iliacs were easily traced by the touch. From the distinctness of the form, course, and action of the abdominal aorta, and from the fact that the front wall of the belly, lay directly on the lumbar vertebræ, it was obvious that the mass of small bowels was removed* from their natural seat, and what had become their place could not be made out, but on conjecture that they had shrunk within the upper pelvic brim. In the last week of his life the patient had a short cough, without expectoration. On examining the regions of the chest, a peculiarity in the respiratory thrill was discovered at one place, communicating to the hand a feeling like deep-seated circumscribed emphysema, making at every inspiration, and still more on coughing, the slight but distinct shock of air moving through fluid in a defined space; the "crepitous rale," with some cavernous reverberation, at a point on the anterior margin of the left axillary region, near the border of the great pectoralis. Ulcerous incavation of the superior lobe, pleural surface of the left lung was inferred, in addition to the lesions indicated on first examination.

This man died somewhat abruptly on the 9th of May, seven weeks after admission.

Examination eight hours after death.—Thorax. External aspect of both lungs healthy; some ancient adhesions on both sides. The upper portion of the left lung adhered closely in the space under the axilla, for two inches to the pleura and ribs. Pressing the body of the lung away from its attachment at that point, the adhesion was seen surrounded by lymph recently effused, exterior to which on the surface of the lung was a zone, half an inch broad, of high, red ecchymosis. The attempt to separate the lung from its morbid connexion with the pleura and ribs, caused a rent into an ulcerous cavern in the substance of the lung of sufficient space to hold a pigeon's egg, and partly filled with purulent contents. This was the only point of actual degenerescence in either lung.

Abdomen. Omentum reduced to a thin fimbriated membrane, about one inch broad, covering the transverse colon. The stomach lay higher than usual in the direction of the thorax, from a deep arching of the diaphragm, of firm substance, and flattened pyriform shape, six inches long, by four broad; its upper line preserving somewhat the natural curve of the small arch. Cut out of the body, the whole exterior of the stomach presented an equal smooth surface, of dull white colour, without marks of recent inflammation; it felt heavy and solidified. Opened through the great curvature, the cavity was very small; the longitudinal plaits of the mucous coat very much raised, widely separated from each other, and of a dark chocolate colour, contrasting remarkably with the surface of the intervening sulci, which were of a strong pearl-white. There were no patches of red ecchymosis, as from recent sanguineous infiltration. The cut edges of the stomach showed great general condensation, being throughout half an inch in thickness, the condensation made up of compact, white coriaceous substance, less hard than scirrhus, but dense and firm, with longitudinal and transverse bands, or striæ traversing the condensed tissue, which no longer showed any regular lamination or remains of distinct coats. Where the œsophagus entered, and the duodenum went out, the tube and the bowel were perfectly healthy to the very point of their connexion with the stomach, the coats of each thin and soft to where they abruptly joined the condensed substance of that viscus. Neither the cardiac nor pyloric portion of the stomach were more thickened or indurated than the body of the organ. One point in the anterior middle region of the stomach was thicker, harder, and rougher than any other, the extra thickness at this point, a space of an inch and a half in diameter, was one-third greater than elsewhere, and this portion was also advanced beyond the rest in disorganization, approaching very nearly a state of tuberculation. It seems to have been this point which was so perceptible and sensitive to the touch during life.

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* In chronic tabes the belly is often so much shrunk from absorption of all the adeps of the omentum, mesentery, and bowels, with atony and emptiness of the latter, that the spine and pulsation of the aorta can be readily felt through the collapsed mass of small intestine. In this patient's case the aorta could be accurately traced, (between the finger and thumb,) in its cylindroid form, through the belly and into the pelvis.

The middle space of the abdomen, the natural seat of the small bowels, was quite vacant. From the line of the transverse colon to the top of the sacrum, the course of the spine and great vessels was uncovered, except by the root and sheet of the mesentery. The expansion of the latter was studded with miliary tuberculations; its glands not enlarged. The small intestines were shrunk into the pelvic fossa, between the bladder and rectum. The left kidney was much enlarged, softened, and gorged with blood; the central lobulated portions undergoing tuberculous degeneration; its capsula renalis was opened by chronic ulceration through its whole extent. The right kidney was enlarged and softened, but less morbid than the left; its capsule thickened and undergoing melanosis. The bladder was very much contracted, but its coats not sensibly thickened, nor otherwise unhealthy.

Remarks.—It is evident from the state of the stomach, that it had long lost the powers of a digester, and could have performed no part for some time at least before death, in the primary elaboration of the elements of nutrition. And although from this defect, emaciation had ensued to a very great degree, yet life had been protracted so long after the body had become a mere animated skeleton, as to imply that partial alimentation had been kept up. Circumstances are not altogether wanting to favour the presumption, that the small bowels have more to do with the work of digestion than merely to afford surface for lacteal imbibition, and a channel for the passage of recrement. It is probable that they possess some power of operating an ultimate or more perfect conversion of alimentary matters delivered from the stomach, thus finally preparing them for lacteal election; and it is a physiological problem of interest, whether they might originate the process of chymifaction on alimentary matters delivered to them wholly unchanged by the stomach, in consequence of a morbid state, limited to that organ.* In this man's case we had frequent occasion to observe that dejections procured by enemata, at intervals usually of two days, were commonly a somewhat considerable mass of as homogeneous and natural looking fæces as are passed in ordinary health; there were no remains of unchanged food, nor other heterogeneous matters in the stools.

This case strongly illustrates a result by no means common, yet perhaps more frequent than we are aware, of that irritation of the stomach, called dyspeptic disorder, when long-continued and aggravated by great errors of diet, &c. The patient, from all that could be learned, was not intemperate in the usual sense of the term—he was not a drunkard; but leading a laborious life, his food was always gross and irritating; and ignorant of the nature of his disorder, he continued the use of that kind of aliment, (with constant suffering and increased disorder,) until the stomach wholly refused any longer to admit it. That this case had run on from simple gastric irritation to final morbid conversion, was strongly implied by the symptoms when the case was brought to us, and this presumption was afterwards confirmed by an account of prior circumstances. At first coming into the institution, the man declared himself to have been very well until a short time before entering the Baltimore Infirmary. Some weeks subsequently, when urged to speak with caution, he acknowledged that he had long been subject to pain of his stomach after eating; that for years before, he was greatly troubled with "water-brash," pyrosis, and he said that "he supposed no person in the world had ever passed so much wind from the stomach by belching, as himself." The degeneration of the kidneys in this case, as perhaps in nearly all instances of functional or structural derangement in those glands, was probably a secondary lesion, devolved on them in the progress of gastric disorder, chiefly through symptomatic constitutional irritation, and in part possibly by an unhealthy quality of the circulating fluids, the result of defective gastric elaboration, conveying to those organs properties of morbid stimulation, and supplying at the same time the elements of vicious secretions.

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* Continued emaciation in this man's, or any similar case, is small argument to the contrary; the painful sensations from the presence of food in the stomach, prevented his taking enough for nutrition, and besides constitutional irritation from such a state must exhaust in a ratio out of all proportion, to any possible supply of the elements of repair.

Case II.—*Gastro-Cephalitis.*—David Miller, a stout, muscular young man, aged about twenty-five, long employed in various labour about the Alms-house, was brought into the Infirmary on the 27th of June, 1829, with the following symptoms:—Face pale, countenance heavy, with an expression of suffering; eyes red and watery, intellect dull, with tendency to drowsiness; when roused, complained of headache; respiration short and slow, with sighing, frequent turning of the body from side to side, with almost constant and apparently unconscious semi-rotation of the head. The tongue very much loaded with soft, brown sordes, tip and edges extra red, stomach nauseated, epigastrium exquisitely tender, every touch with moderate pressure causing instant shrinking and moaning exclamation; no tympanitis. The surface of the whole body was cold, the pulse small and frequent, the stroke so feeble as to be scarcely well defined.

This state had come on without any known cause; the man had complained first the night previous of feeling unwell, was too sick to go to work in the morning, and was brought at nine o'clock into the Infirmary, where we saw him two hours after with the symptoms described. On inquiring into the young man's usual habits of feeding, we were told that he was remarkable for general voracity of appetite, and had made a very hearty dinner—soup, meat, vegetables and bread—the day before.

The whole of the vital functions betrayed a state of prostration so great, as both from its degree and character nearly to extinguish hope of benefit from any mode of treatment. While the condition of the stomach, the brain, and whole nervous system, indicated intense disorder and extreme depression, the reactive energy of the vascular function seemed to be annihilated. Sub-acute irritation, with probable lesion, of the most important textures, were here blended, even in the first moments, with the extreme of adynamic failing in the whole economy. It was to be apprehended that in one or both the seats of concentrated irritation, the stomach and brain, fatal embarrassment had already resulted, by acute gastritis, in the one seat, or by arachnoid effusion in the other; and under such complications the prognosis was altogether unpropitious.

Treatment.—Ordered moderate emesis, by ipecacuan, in weak chamomile infusion, with liberal draughts of cool barley water. After emesis, enemas of barley water, with ʒj. tinct. fœtid. until the bowels were moved, spirituous fomentation over the epigastrium, immersion of the lower extremities in hot water, afterwards sinapisms to the legs, and a vesicatory between the shoulders. Emetic acted moderately in thirty minutes, discharges abundant, green, and viscid, alvine movement from enema, ordinary fæcal matters, epigastrium less sensitive after vomiting, skin still cold, no moisture, no reaction, pulse as at first barely perceptible, patient restless, turning from side to side, sensible when roused, constant movement of the head, eyes half closed. The external excitants failing to rouse the circulation, or the temperature of the surface, and the general lowness and exhaustion, becoming constantly more absolute, a resort to cordials seemed the only alternative. Bread tea, with some wine, was ordered, and the mist. camph. comp. directed at short intervals; fomentation of the abdomen continued. The diligent employment of those agents was answered by no sign of revival in any of the functions. Insensibility succeeded to the first symptoms of restlessness and moaning, and death took place quietly at four o'clock in the afternoon, about seven hours after the patient's coming into the ward, and somewhat less than twenty-four hours from the time he began to complain of feeling unwell.

Examination twenty hours after death.—All the pathological signs referring to the stomach and brain, as especial seats of lesion, the examination was confined to those organs and their immediate relations. The stomach was empty, except a quantity of dense, brown, ropy fluid; the mucous membrane contracted into plaits, as common, and presenting throughout a uniform and distinct, though not very strong, pink, or pale rose colour. The florid tinge of the mucous coat was nearly equal every where, no spots of deep red hue from special congestion, or bloody infiltration; there was no appearance of ecchymosis or venous engorgement, no slate-coloured patches from chronic irritation. The cellular coat of the stomach, and in connexion, the muscular and serous tissues, exhibited a strong pervading rose tint, with an infinitely multiplied display of the capillary system of all the tunics, highly injected; the whole presenting, when held up to the light, a crowded arborescent form of the minute arterial series of transmission, and diffusing a deep red tinge over and through all the coats, which, washing the stomach, did not sensibly abate. The mucous and cellular coats of the duodenum, partook in a less degree of the fine injection so predominant in the stomach; the remainder of the small bowel, and all the large intestine, were in a natural state.

Encephalon, dura mater, cranial surface, unusually florid, whole membrane very much injected, and bloody, from vessels ruptured in tearing up the skull; no patches of congestion or of inflammation any where on the dura mater. The arachnoid coat, besides showing more of the red tinge than common, was likewise very obviously detached and raised generally from the proper tunic of the medullary substance. The detachment of the arachnoid from the pia mater, was caused by sero-gelatinous infiltration, separating those coats over nearly the whole surface of the brain. There was a similar effusion between the arachnoid and pia mater of the cerebellum, medulla oblongata, and cervical tract of the spinal chord. The substance of the brain was not sensibly altered from its natural state, except by greater distinctness than common, of its nutrient arteries, as indicated by the multiplied red dots through the medullary mass, showing their place when cut.*

Remarks.—This case deserves some attention, more from its rapid progress than from any thing obscure or new, in its character and consequences. It affords painful illustration, that the triumph of disease may sometimes be easy and rapid, where its approach is announced by little formality or parade of invasion.

It is worthy of notice how early the symptomatic form of cerebral irritation was excited, and how rapidly it ran on to congestion with infiltration. All the circumstances of the case import the probability that the primary seat of irritation was in the stomach, and the catenation of disorder in the sensorial and vital system, which ended in collapse so precipitous and total, referable to that law of gastro-cephalic sympathy, constantly displaying its reciprocating attributes in phenomena of various form and intensity. In the present instance, the relations of excitability between the gastro-cephalic systems, appears to have possessed a character of special exaltation, accompanied by great defect in the latter, of capacity for elaboration of vital power. Hence the early signs of sensorial disorder, the sudden failure, continuous decline, and speedy extinction, of energy and action, in all the systems. Whether the total symptoms of the case owe their character of extra-intensity, to anormal condition of the organs in which irritation concentred—to some predisposition—to something peculiar in the nature of the exciting cause, subduing the energies of the whole system, in proportion as it gave impulse and concentration to disorder in particular seats; or finally, whether the signs and issue of the case were purely the regular and necessary consequences of the mere force of stomach irritation, deranging the cerebral and sensitive functions, through the conducting relations of the great pneumo-gastric intermedium,* are questions of pathological interest, not easy of satisfactory determination.

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* For an account of the pathological state of the encephalon, I am indebted to the intelligent pupils of the house, who made the examination for me. The stomach was preserved and carefully examined by myself a few hours after it was taken out.

Reports of cases are matters more of curiosity than value, except as they tend to inculcate something of practical use, and serve either to confirm knowledge, or admonish of error. The treatment adapted to the pathological state of the subject of the foregoing history, was felt to be a good deal embarrassing, and the course pursued was yielded to the pressing demand for some attempt at relief, without the full conviction that is desirable, of its precision or propriety. The means first employed, the emetic, was of doubtful fitness, and granting the existence at the time of established gastro-empresmatis, vomiting could accomplish nothing beneficial, and must almost necessarily multiply inflammatory orgasm of the part. It would thus aggravate symptomatic constitutional disorder, and probably augment the tendency to serious cerebral derangements. But the whole train of symptoms had ensued very recently to an apparent exciting cause, (excess in eating,) calculated to give direct disturbance to the stomach, and it was entitled to consideration, whether important relief might not follow the removal of offensive matters from that viscus. Emesis contraindicated by supersensitiveness of the stomach, seemed yet demanded by the probable cause of that state, repletion by gross food, and farther as a mean of diffusing excitement toward the torpid capillary systems of transmission and secretion, often a successful mode of diverting from congestion, and in its result the most efficient agent of counter-irritation. Sensitiveness of the epigastrium, though greatly exalted in this case, is always an equivocal representation of the pathological state of the stomach. It exists as often, and to as high degree, in simple irritation of that organ without phlogosis, as where it is contingent on inflammation of the tissues. In all the hollow viscera, (and in the serous membranes,) a state of irritation often arises, characterised by intense pain, and exquisite perception of touch, in which there is no inflammation, and from its occasional severity and long continuance without such consequence, with little tendency to that result. This state obtains in the stomach, and is familiar by the denomination of morbid sensibility, gastralgia, when violent, in the small and large intestine, as the cramps or pains of colic; in the kidneys, bladder, womb, the serous tissues of the chest, belly, &c. by distinctive appellation in those several seats. There is no structure in the body in fact, endowed with the attribute of irritability, in which pain, tenderness, &c. may not exist unproduced and unattended by inflammation. The actual state of the stomach, revealed by examination after death, implies perhaps a strong indication for some mode of local depletion, and accustomed to the general and liberal use of cups, about the epigastrium, in constitutional disease with gastric complication, their employment was omitted in this case on account of the cold, low, and prostrated state of the patient, suggesting a preference for the moment of other means. It may be controverted whether the substitution was judicious; and instructed by the lesion discovered in this instance, cupping the abdomen, neck, and temples, should be an early and principal mean of treatment in any future similar concurrence of symptoms. It is plain, I conceive, (but no palliation of a therapeutic error,) that the catastrophe of the case was determined, before any treatment was instituted.

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* The case was sporadic, or solitary. There was no prevalence at the time of the gastric or ataxic forms of fever in the house.

The cordial plan resorted to in the closing stage of the case, was the alternative of necessity, not of choice. Both the nature and seats of the principal derangements, furnished admonition of its unsuitableness and inutility. From the manifest demand for some means of sustentation, when the powers of life are rapidly yielding to the force of pathetic states approaching their mortal crisis, joined to a benevolent reluctance to stand idle spectators of the triumph of disease, we are frequently driven to stake the last effort for the patient, on the strength of stimulation. We thus design either to rouse the system to new exertions, and thus to place it above the grade of the morbid excitement, or else to give the chance of artificial support, until the rage and tumult of that action has passed by. To attempt either, however, we must often overstep the plainest rules of pathology, and it unfortunately happens, that the result generally demonstrates how little is gained by those irregular though well-meant endeavours. Experience is continually multiplying the proofs, that however profound the exhaustion, however prostrate the constitutional state, dependent on local embarrassments, we must forever stimulate in vain, in unsubdued inflammation of important tissues.

CASE III. *Asthma Organicum.*—Polly Cooper, aged thirty-nine, middle size, inclining to corpulency, admitted into the Baltimore Alms-house, 1st of March, 1829. *Symptoms.* Short wheezing respiration; frequent abrupt cough; no expectoration; discharge of frothy sputum from the larynx and fauces, after coughing. No pain or soreness in the breast, either with common breathing, or on making full inspiration; chest resonant to percussion every where, except the upper third of the sternum, and less distinctly under the left than the right clavicle; no mucous rattle any where but in the trachea at the top of the sternum; shoulders and chest drawn up in inspiration; expansion of the thorax equal on both sides. The voice and speech were nearly abolished, the former rough and guttural, the latter a hoarse whisper. This was the whole appreciable pathology of the case. All other symptoms and functions than those of respiration and voice, seemed to be in their normal state. There was no fever, no gastric, hepatic, or cephalic derangements, no evidence of local or general infiltrations. The mind was calm; tongue clean; appetite good; excretions regular; and the body nourished.

The history of the case was as follows. In her employment as washerwoman, she had caught cold early in February last; was attacked suddenly by chills and fever, pain of the breast, difficult breathing, cough, and great hoarseness; was very ill for some days, then got free of fever and the pain of her breast; but the hoarseness remained, and with the difficult breathing, short cough, and rough whispering voice, had continued ever since. She described her health as good, previous to this attack, not liable to pneumonic affections, or disordered respiration in any form. This account threw but doubtful light on the character of the existing symptoms. The manner of acute seizure in February, corresponded to laryngitis, or cynanche trachealis, and the present state might be one of those affections passed into the chronic form, with infiltration and thickening of the laryngeal and tracheo-bronchial mucous tissue. Such was the diagnosis.

Treatment.—It was proposed to establish secretion with expectoration, and thus to relieve from chronic engorgement of the mucous membranes. With this design an alterative course was instituted, which consisted in the employment at short intervals of mild emetics; and the regular exhibition of small doses of calomel, squill, and antimony. To mitigate dyspnœa, and quiet cough, an emulsion of ammoniac, gum. fœt., syr. scill., and tinct. op. camph. was directed at night, and at other times, pro re nata. Counter-irritation was maintained on the chest, by a succession of epispastics, and afterwards by tartar ointment. The patient was kept in bed, and her diet regulated; simple, non-exciting food, in quantity sufficient for due support.

The patient's general health kept about the same as when admitted. There was no fever and no pain; pulse equal and soft, not in any respect out of balance; appetite good; bowels free, without irritation; sleep natural, with some interruption by cough. Of the latter, the patient thought she had less than on first coming to the house, but the difference in this respect was not very evident, and the only approach to expectoration after some week's treatment, was a free discharge, (by coughing and hawking,) and greater density of the frothy ropy matter, mentioned before. The hoarseness and thick wheezing respiration continued.

The alterative plan was carried gradually into moderate constitutional impression, and ptyalism maintained for some time: the expectorants and counter-irritation were also pursued. Contrary to my anticipations, the state of the patient remained wholly unaffected by the mercurial influence, and after constant and diligent use of all the means employed, none of the results contemplated by the treatment were accomplished. The case was so uniformly the same in all its circumstances, that the description of it for the day of admission, was applicable to the symptoms at the end of six weeks, and for all the intermediate period. The thick breathing, hoarseness, and dry smothered cough, (of a kind not easily described in words, and best represented by the popular term husky,) remained as at first, not at all modified by time or treatment. The patient in the mean while kept her ground in appearance, strength, &c. She ate and slept well; was free of fever; had no pain; felt the same whether lying down, sitting, or standing; and in bed could take a position on the back or on either side, with equal convenience. In the general, however, the patient was found lying on the left side, which she attributed to habit rather than necessity. The pulse was at all times steady, calm, and equal; rather small, and without due force, but never irregular, intermittent, or tumultuous. This fact is worthy of note, from the striking discrepancy of such a pulse, with the lesion afterwards found in the case.

The attempt to relieve chronic congestion of the tracheal mucous tissues, either by extinguishing irritation in that seat, or inducing a kind of excretion that would dissolve the supposed engorgements, having failed altogether, it was concluded that the impairment of respiration, voice, &c. depended on some other cause than the state first supposed. Notwithstanding the woman's declaration of entire immunity from any disorder of respiration, previous to the sudden attack in February, it was suspected that her symptoms might be the effect, either of some old structural degeneration, now advanced to the stage of constant and necessary interference with the office of the trachea, bronchus, or lungs, or else that this was a case in which some morbid state, specially affecting the nervous system of respiration, had given occasion to an asthmatic form of pulmonary embarrassment, unusually profound and protracted. To test how far the disorder of breathing partook of asthmatic* complication, the agents adapted to the chronic form of that disorder were employed. Stimulant antispasmodics were exhibited freely—gum. ammoniac., assafœtid., myrrh, camph., bals. Peruif., in pills, āā. vj. grs.; stimulant embrocation, ol. terebinth., ol. succini, to the dorsal spine. No improvement of respiration ensuing to the employment of the stimulant gums alone, part of them were afterwards combined with the mineral tonics, carb. zinc. et ferri, and tried some time in this form. The narcotics, so much commended in old asthma, pituitous catarrh, &c. cicuta, hyosciamus, and finally dat. stramon. were brought into use, and the dose carried as far as was deemed prudent. Under all these agents, the character of disordered respiration remained invariably the same; the sense of difficulty in breathing was somewhat blunted by the narcotics, but in the common feelings of the patient, and to all appearance from the symptoms, she was neither better nor worse than on entering the infirmary. As a last trial with, (reputed,) antiasthmatic means, she was put on the use of tinct. lobelia inflat. This article failed also, after sufficient trial, and it was thought vain to combat the disease longer with arms of the same class.

Having on more than one occasion found a morbid state of the bronchial glands in chronic disorder of respiration and voice, it was surmised that hypertrophy with induration of those glands might constitute the chief source of permanent tracheo-bronchial irritation in this case. It was not without precedent, (one such case having fallen under my observation,) that a steatomo-calcareous conversion of the lymphatic glands about the branching of the primitive bronchii, might mechanically contract those passages so much, as with the change likely to occur in the upper membranous portion of the trachea, from constant irritation, would cause breathing to be performed with stridulous sound and effort. In such a local affection, respiration, inhalation especially, would be attended by resonance, the same in kind with the sharp hissing tone of sound, always remarkable in the case under treatment. This cause of altered respiration, voice, &c. had been early adverted to among the possible sources of the patient's symptoms, but was in great part set aside by her declaration of perfect good health, before the sudden attack in February. It was now again brought into consideration, and made the basis of farther efforts to relieve. On the credit of the many reports in favour of the influence of iodine over glandular indurations, and some concurrent testimony in my own practice, that agent was now employed. It was exhibited after the formula of Magendie, carried to the full dose, and continued uninterruptedly for some weeks. The result was precisely as under all former treatment. The symptoms held an unvaried course, and no sign of change or improvement altered for a moment the singular sameness in the state of the patient. The woman suffered comparatively little, she was without fever, always had appetite, and slept well. She had no actual pain, and time and habit had in some degree reconciled her to a manner of breathing it was impossible to see and hear without pity and unpleasant feelings. At a loss what more to attempt for the poor woman, she was spared the inconvenience of farther use of medicine, and except something to restrain cough, with an occasional aperient, she was let alone, released from strict regimen, with permission to consult her own inclinations and comfort, as far as the accommodations of the ward would allow. On the night of the 29th of May, this woman was attacked by a paroxysm of suffocation, (the first since coming into the ward,) which not yielding to any of the palliatives employed, caused her death in a few hours.

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* Differing materially from the common forms of nervous or spasmodic asthma, in being uniform and constant, instead of occurring in paroxysms of various frequency and violence.

Examination eight hours after death.—On removing the sternum, the lungs appeared and felt sound and healthy; no serous infiltration of their substance; none in the free space of the chest, the pericardium, or pulmonary sacs.* It was thought best to dissect out the trachea, lungs, &c. in a state of connexion, that all the apparatus of respiration might be carefully examined. When this design was pursued as far as the root of the trachea, (just within the thorax,) there was met a firm body of rounded and regular surface, occupying the whole upper space of the left thorax, which being traced as far as practicable, was found intimately attached at its root to the left side of the spine, and continuously on its whole posterior face, to the head and curve of the ribs. The adhesions were so close and strong, that they could only be separated by cutting, and the knife traced the line of the ribs for the whole extent of attachment, about five inches. In freeing the tumour behind, an accidental cut into its substance showed an interior matter, different in appearance from the external surface of the tumour. Within, the substance was of yellowish-green colour, and solid pulpy feel, while the covering appeared as a regular sac, enveloping the pulpy mass, very thin, peeling off easily, and showing a smooth inner surface, as if lying closely round the mass, but not incorporated with it. When the adhesion behind was completely freed, it was plain that the tumour formed the upper part of the descending aorta, and when the latter, with the œsophagus and cava, were divided below, and all the parts taken out of the thorax, it became at once evident that the tumour was of the aneurismal class. The solid enlargement commenced at the root of the left subclavian, and extended rather more than five inches, when the vessel regained its natural size. The greatest circumference of the tumour was about six to seven inches, and was regular or equal to where the aorta suddenly resumed its proper volume. The tumour was solid and round every where, except along the concave arch line of the aorta; here a free canal, smaller than the natural lumen of the artery at this point could be distinctly traced, communicating with the open part of the aorta at both ends. Cutting into this tubular portion of the tumour, a thin stratum of recently coagulated blood was found there; no other coagulum or loose matter of any kind. The coats of the artery very thin, were dilated into a great pouch, filled with a homogeneous, greenish-yellow concrete, of great hardness, which on being cut or torn with the nail, broke up in consistence and appearance much like the pulp of an unripe peach. This concrete was regularly hollowed or channelled along its lower surface, so as to preserve an exact correspondence in figure, but of less diameter, with the undilated portion of the aorta below.

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* The external bronchial glands very much enlarged, but softened.

The mass of concrete substance occupying the arch of the aorta, so as to give the appearance and the feeling of the solid tumour, was no doubt of lymph, but whether deposited and accumulating in this form from blood, or the remains of coagulations which had gradually lost their colouring matter, is not easily determined. The mass was perfectly homogeneous in consistence and composition, as well as in colour, and nothing was apparent of that lamellar arrangement or stratification, so generally found in aneurismal sacs of the large class. There was no where about the aneurismal bag or its contents, any of that black staining, so common in this form of disease; all within and without the tumour was pale, colourless, and even particularly blanched.

The trachea was slit open down to the point where it was in contact with the tumour of the aorta; its mucous membrane natural in appearance; no congestion or mark of inflammation. The external coat of the aortal tumour adhered to the side of the trachea, and the mass pressed on the latter so as nearly to close the passage into the bronchii, the point of greatest pressure being at the highest lateral portion of the tumour. The whole cause of distress throughout the case, and ultimately of its abrupt termination in death, was mechanical obstruction at the root of the trachea.*

This somewhat unusual manner of aneurismal display, was not the only remarkable circumstance in the state of the aorta. From its origin at the ventricle up to the root of the left subclavian, where the concrete commenced, the aorta was dilated into a great bag, or long pouch, capable, I think, of admitting a moderate-sized fist, and of equal diameter in all that tract. From the swelling of the aorta here, it was with difficulty the root or trunk of the pulmonary artery could be traced, and on opening the left ventricle into the aorta to see the state of its valves, it was obvious from their separated state, that they could by no means close so as to support the column of blood; their points could not be brought together by a space greater than the common calibre of the artery near its root. The coats of the aorta in this dilated portion were soft, pliable, and strong—in other words, healthy. The left ventricle, and all the chambers, were in a natural state; the whole heart rather small.

Remarks.—The true character of this woman's disease was never suspected during her life, mainly, no doubt, from our want of experience and tact in regard to such affections, and in some degree perhaps from the too common error of omitting that minute and repeated exploration of the thoracic regions, which alone can shed light on the nature of obscure lesions within that cavity. In this case, attention was too readily diverted from the state of the heart by the fact that besides a pulse always regular and equal, there was a total absence of those sudden paroxysms of distressful breathing, with severe pain, usually attendant on morbid changes of the heart. Neither were there any of those occasional attacks of agitation, coldness, sweating, tremors, swooning, or tendency to swooning, which are indicated among the signs concomitant of degenerescence about the heart, or its great vessels. Exploration of the region of the heart not wholly neglected, lost in this case from peculiar circumstances, great part of its value as an aid to diagnosis. There was no external palpable sign of the kind of lesion that existed; no extra pulsation; none of that characteristic thrill or vibration which belongs to aneurismal development, either in the space corresponding to the great curve of the aorta, or, (as is often said,) in the pulse at the wrist. The reason is plain: the aneurismal tumour was tied firmly behind to the spine and ribs, and could not be lifted, (by the heart's stroke,) against the chest in front, and the current was free through the tumour, in the natural or direct axis of the tube. It was perhaps from the same cause, (the fixed state of the tumour, and free channel through it,) the patient's sensations were so little, or rather not at all affected by posture; it has been mentioned that her feelings were the same standing, sitting, or lying down, on the back, or either side.

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* The œsophagus too, must have been affected by the same pressure, yet the patient never complained of difficulty or impediment to swallowing.

The state of this woman's disease was no doubt very much influenced by her acute attack in February. Whether the inflammation which interwove the coats of the aorta with the pleura of the spine and ribs, &c. preceded, (and may have given occasion to,) the dilatation of the vessel, and the deposite of lymph within the tube, or merely supervened to a previous change of the artery, of uncertain duration, is a question there are no means of settling. It is very probable, however, that a great change occurred either in the state of the vessel, or its relations to other parts, at the time the woman referred to, as the period of her illness. She was consistent in declaring that she was well, and breathed easily, until that illness, and that she had been hoarse, and breathed hard ever since. On this statement, the local disease either commenced at that moment, or received then a new impulse to development, or what is most likely, then formed for the first time the adhesions, by which it became involved with the trachea, and embarrassed its functions.

Case IV. *Concrescibility of the Blood.*—A young woman, name unknown, aged about twenty, full muscular form, and very fat, was brought to the Alms-house in a state of insensibility, on the 20th of

March, 1829. No information could be obtained of the person who brought the woman, as to the cause or duration of her present state. He had been employed to take her from a house of ill fame in the city, and knew nothing more about her.

From the symptoms, and all that could be learned, the woman's condition was presumed to be the effect of intemperance, her insensibility the stupor of profound intoxication. She died almost immediately on being taken into the ward.

Examination three or four hours after death.—Great sanguineous engorgement of all the tunics of the encephalon; both vascular systems fully injected; no special lesions by extravasation or palpable effusion. Stomach.—Mucous coat generally florid around the pyloric orifice; all other viscera of the abdomen natural. Thorax.—Lungs sound; gorged with blood, dark-coloured, and heavy. Direct cause of death uncertain, whether from congestive apoplexy, or fatal stupefaction by narcosis.

The subject of this case was brought to the institution in the interval between my visits, died directly after admission, and was examined by three highly intelligent students of the house—Dr. Smith, Dr. Warner, and Mr. Glassell. Those gentlemen did me the favour to show me the heart of the subject, together with a body representing an exact cast of its chambers, of the canal of the aorta for five or six inches, (to where it was divided by themselves,) and of the tubes of the carotids and subclavians. This was a homogeneous coagulum, giving the figure of the cavities of the heart, and prolonged into solid cylinders, (five to six inches,) corresponding to the interior of the aorta, carotids, and subclavians; the cast of all the parts was of full natural size, the substance dense, and somewhat elastic. In the heart the concrete filled all the space completely, dipping between all the columnæ corneæ of the ventricles, and taking the impression of the musculi pectinati. The whole body was white and polished on the surface, and lively yellow-green within; a thin stratum of fluid red blood stained the surface of the coagulum in places. The gentlemen who made the examination, represented that the trunk of both cavas were occupied by the same concrete matter, with a little fluid blood around the plug. Cylinders of the same matter were found in all the arterial and venous tubes as far as investigated, chiefly of the neck. The examination had not been carried to the principal trunks remote from the heart.

Does this process of concretion in the chambers of the heart, or the trunks of its great arteries, ever anticipate death? A man under treatment in one of our wards for chronic dyspepsia, not of aggravated character, was attacked about the 10th of September, (past,) by a sense of weight and pain of the chest, difficult breathing, chills and flushing, hot skin, feverish pulse, general bad feeling, anxiety, and aversion to lie down. He was bled, cupped across the thorax, and took a saline purge with antimonial combination. Next day no better, hot skin, quick, sharp pulse, rather smaller, heaviness with some pain in the breast, breathing slow, but embarrassed, not full, posture erect, sitting up, very small cough. Cupped on the sides, antimonial powders with nitre and gum Arabic, also the neutral mixture. The symptoms aggravated in the evening, oppression and labour of breathing increased, extremities became cold, circulation ebbed rapidly, and he sunk in the course of the night.

Examination.—Subacute inflammation of some central portion of the lung had been suspected in the case. We found the lungs pale, soft, and natural throughout, no surface or central inflammation, congestion, or condensation, some hydropic infiltration of both pulmo-pleural sacs. The pericardium was half filled with bloody water, the inner surface of the bag pink-red colour. The surface of the heart was dark red; the coronary veins large and congested, those of the base of the heart, the posterior coronaries, stood full above the surface of the heart, gorged with black blood, and three of them larger than goose-quills. Handling the heart, or pressure on those veins, did not at all empty them. The left ventricle was empty, the semilunar valves, at the root of the aorta, were fibro-cartilaginous, a small bone in one of them. The right ventricle empty. The right auricle was completely filled by a grayish-white concrete, of much firmness, which, occupying the whole sinus, the fossa ovalis above, and the expanded portion of the lower cava, choked the entire cavity of the auricle. The coronary veins, as before said, were all turgid; both cavas, and all the veins of the neck and thorax, full (fluid blood) to distention.

In this case there was old, partial hydrothorax. The acute seizure seems to have been carditis, more mischievous, perhaps, from complication with degenerescence of the valves. When the concrete in the auricle was formed, or what its sum, or kind of interference in the case, I am unable to say. It is the first considerable formation of the kind I have ever seen in that chamber.

Art. XI. *Case of Sub-acute Gastro-entero-cephalitis.* By C. Drake, M. D. of New York.

A LADY, aged about thirty-three years, of nervo-sanguineous temperament, the characters of both temperaments existing in the highest degree, was attacked in March, 1827, with a pulmonic affection, for which, believing it to be an ordinary catarrh that would yield to domestic remedies, she neglected to take any medical advice. On the evening of the 16th she threw up some blood on coughing, which alarmed her, and I was sent for the next morning. I found her labouring under a severe cough, with short hurried respiration, and pain of the left side on inspiration. The pulse was frequent, quick, and small. Skin heated, with other febrile symptoms. She was bled to the extent of fourteen ounces, which produced a tendency to syncope that did not leave her for an hour or two after. An ounce of castor oil was directed to be given as soon as she recovered from the immediate effects of her blood-letting, and mucilaginous drink, sweetened with liquorice root, was ordered, to allay the cough.

18*th.*—Has been sensibly relieved by her remedies; pulse reduced in force and frequency, cough not so harassing, respiration freer, but still attended with some stricture of the chest. Tartarized antimony, in small and repeated doses, was conjoined to the mucilaginous ptisan with the best effect. It produced occasional nausea with abatement of the febrile symptoms, perspiration, and alleviation; but as she still complained of pain of the left side on taking a full inspiration, I directed a blister to be applied over the affected part the next day. By these means, I succeeded in a few days in overcoming the pulmonary affection, without other inconvenience than a distressing state of languor, produced by the antimony, which obliged me to discontinue its use: but very soon after, I had a different train of symptoms to contend with. The patient now complained of most excruciating pain of the head, coldness of the extremities, sense of sinking, with inability of bearing the least motion or exertion. The pulse became quick and feeble, skin clammy and cool, eyes sparkling, and tongue and lips of a deep red. I directed some light nourishing food, containing a small quantity of wine, and sinapisms to the feet. Towards evening she became delirious, and talked incessantly during the whole night. I thought the wine she had taken in her food added to her agitation, and I withdrew it the next day, and substituted the frequent use of the mustard pediluvium for the sinapisms. On the succeeding evening, finding the delirium and loquacity continuing, I administered a full anodyne of denarcotized laudanum combined with nitrous ether, which produced tranquil sleep, and she awoke in the morning rational and calm, but complaining of great languor. By means of a light nourishing diet, she became gradually restored to a tolerable state of health, without, however, having regained her wonted strength. On this account, I advised her to pay great attention to her diet, and especially to avoid fatigue or much muscular exertion, till her health should become completely re-established.

This lady, I believe, paid very little attention to my counsel, but returned almost immediately to her accustomed diet and mode of exercise, trusting to time to bring about the restoration of her lost strength. Early in June she went into the country, where she partook of the ordinary fare of our farm-houses, and soon after became affected with irregular paroxysms of fever, slight at first, but gradually aggravating till she supposed herself attacked with common intermitting fever, at that time prevalent in the neighbouring country, although there were no cases in the town where she resided. By the advice of a physician, she had recourse to the Peruvian bark and wine for the suppression of this fever, but with no good effect. On the contrary, her febrile symptoms perceptibly increased in intensity, exacerbated at irregular times, and finally remained almost constantly upon her. She complained of loss of appetite, a scalded feel of the tongue, frequent returns of head-ache, sense of load at the stomach, constant thirst, and increasing debility. Under these circumstances the bark and wine was thought to disagree with her, and the sulphate of quinine substituted. This she found suited her case better than her former medicines, and she continued to take it irregularly from time to time during her stay in the country, but without being able entirely to suppress her fever, or recruit her enfeebled health. In October she returned to the city, weak, emaciated, and febrile, but still able to keep up and about the greater part of the day. The fatigue incident to arranging her household concerns, added to her feebleness, and aggravated her disease. She now judged that the load and distress she felt in the region of the stomach, proceeded from some bilious derangement, and she took an emetic, which she obtained from an apothecary. The emetic operated violently, and increased the symptoms referred to the epigastric region. The next day, finding herself no better, she judged the emetic had not reached the source of her complaint, and that she required a bilious purge, (calomel and jalap.) This completely prostrated her, redoubled the intensity of all her symptoms, and utterly destroyed what little appetite she had heretofore had.

Oct. 24th. I was now requested to see her, and found her considerably emaciated and enfeebled, though she continued to go about her room during the day, occasionally reclining on her sofa, complaining of head-ache, of total loss of appetite, all kinds of food being equally tasteless, and a disagreeable sense of weight in the stomach, as if something had scraped it rudely, which sensation was aggravated for some time after taking any ingesta; but she would not admit that she felt any sense of soreness from pressure on the epigastric region. The tongue was heavily coated, rope-shaped, pointed, and the sides of a deep dull red, and still giving the sensation of being scalded. The pulse was about 100, small and quick, skin hot and rather moist, and face somewhat flushed. I prescribed acetated ammonia in small doses, a mustard pediluvium in the evening, acidulated flaxseed tea, and abstinence.

By these means I succeeded in allaying in the course of a few days much of the febrile irritation, so that she considered herself as freer from fever during the forepart of the day than she had been for several weeks past; but as her inappetency for food continued with extreme languor and debility, I directed two grains of the sulphate of quinine in solution to be taken daily before the accession of the fever. This medicine had not been taken more than three days before it evidently increased the febrile excitement, and quickly brought back all her previous symptoms in their former intensity, on which it was discontinued, and all idea of giving strength, in her present situation, by means of tonic medicines and stimulating food, was abandoned. I advised her to avoid all causes of excitement, to remain constantly in bed, to confine herself to gum water acidulated or not as she chose for drink, and small quantities of panada for food, taken only when she could relish it, and to use from time to time the mustard pediluvium to determine from the head and digestive organs. This plan was strictly pursued, and at the end of a week I thought the intensity of her disease had somewhat abated; still, as she was constantly complaining of so much gastric uneasiness, I was induced at this time to apply a small blister over the epigastric region, which I thought rather added to the excitement, but she imagined it afforded her some relief, and in the course of her after-treatment, insisted upon the application of two others, but which I could not perceive were of any other service than to amuse her with the idea of doing something that promised more than mere abstinence for the relief of her alarming ailment.

Nov. 20th. She had now been confined for about two weeks to a rigid abstemious course, and was evidently improved in every respect. She had little or no fever during the day, and the febrile excitement of the night was gradually lessening; the tongue had become broader and less red on its borders, and even the unpleasant sensation in the region of the stomach had left her, still her appetite scarcely improved, and she remained extremely feeble. In order to rouse the stomach to the performance of its function, I gave her at this time a grain of the sulphate of quinine with fifteen drops of the elixir vitriol, to be taken during the day, and chicken broth to be substituted for the panada. I soon had reason to repent this change of treatment. Again for two or three days she seemed to bear the tonics very well, but after this their ill effects became evident, and quickly threw her back into her former state with more febrile excitement than ever. Besides this, her bowels, which had heretofore been kept regular by eating a roasted apple during the day, now became constipated, attended with excruciating head-ache, delirium, and other hysterical symptoms. After evacuating the bowels with a laxative, as she had not slept for the last two nights, I gave her forty drops of laudanum, which procured refreshing sleep, and she awoke calm and collected. I now returned to the previous antiphlogistic treatment, allowing frequently merely carbonated water to allay the thirst, as I found the gum water occasionally to oppress the stomach and add to her excitement.

Dec. 1*st.* She has been slowly but progressively improving since her return to the antiphlogistic treatment. She remains the greater part of the day free from fever, and the night exacerbations are not so severe, nor the thirst any thing like so great as formerly; but her friends, becoming dissatisfied with her very slow recovery, requested additional medical advice, and one of our oldest and most respectable physicians was joined with me in consultation.

Considering her very enfeebled condition and her very slow progress towards recovery, it was thought adviseable to try once more to accelerate her restoration by a mild tonic plan of treatment, narrowly watching its effects. She commenced with two ounces of a cold weak infusion of chamomile twice a day, and chicken broth or beef tea instead of the panada. These, as before, she bore very well for two or three days, and even seemed to derive benefit from them, so that we thought proper to go one step further, and add eight drops of the muriated tincture of iron twice a day to her other remedies. In a few days, however, we found the febrile irritation augmenting with a return of the old train of symptoms, and we retrenched the tonic remedies one by one till we got back to her former negative treatment. During the succeeding six weeks she had several attacks of her cerebral affection, attended with an extremely torpid state of the bowels, which obliged us constantly to have recourse to laxative medicines. No quantity of these, that we thought it prudent to give in her debilitated state, would produce alvine evacuation in less than twenty-four hours, and then much more copiously than we could have desired. In one instance we gave the tincture of rhubarb as calculated to produce less debilitating effects than the laxatives she had heretofore taken, and although she took only two tea-spoonfuls of the tincture, it produced a high degree of temporary excitement with symptoms bordering on intoxication. The remarkable effects of so small a quantity of spirituous liquor, exemplifies very clearly the actual condition of this lady's stomach and cerebral organ, and how difficult it was to give her any thing in the shape of medicine without the danger of adding to the intensity of her disease. Notwithstanding all these drawbacks, her fever wore away imperceptibly, and towards the close of January she took small quantities of more nourishing food, as custard, blanc mange, &c. and was daily submitted to gentle exercise in a rocking-chair. To this course, and the influence of the coming spring, we determined to confide her eventual recovery, but we unexpectedly received a most important aid from nature, which doubtless contributed in no small degree to hasten her restoration. In February I found her in my morning visit lying exhausted, with sunken features, pulse small and feeble, and on inquiry of her nurse learnt that she was labouring under a profuse catamenial flow. By means of absolute rest, cool drinks, and warmth to the extremities, it had ceased by the next day, when she insisted on being removed into another apartment. The motion and agitation consequent on this removal renewed the evacuation to as great an extent as before, and only ceased after twenty-four hours continuance, leaving her in a state of exhaustion that for the time was truly alarming. For a few days after, the effects of this loss of blood were very perceptible in her rapid emaciation, sunken features, and general collapsed condition, but very soon after things bore a better aspect. Her appetite improved, became good, and she regained her strength and flesh apace, so that she was enabled by the end of March to attend to her household affairs and to consider herself well.

In closing the account of this protracted form of disease, I will content myself with one or two remarks. In tracing the case through its varied changes, I think it must occur to every one that leeching the epigastrium in the commencement would have probably broken up the disease at once, and have saved much after-suffering; and yet, considering this lady's emaciated and enfeebled condition, how badly she bore depletory means for the pulmonic affection, and how imperfect her convalescence from that disease was, few, I believe, except perhaps a thorough disciple of Broussais, would have ventured to have had recourse to that remedy. At the same time it must be admitted that the old method of treating such cases by a round of stimulant and tonic medicines, would have been inevitably fatal in this, and that its favourable issue may be fairly attributed to adopting the more rational views of the physiological school.

ART. XII. *On Lithontripty.* By J. P. HOPKINSON, M. D. (Read before the Philadelphia Medical Society.)

THE operation of lithontripty, known more generally in this country as "CIVIALE'S operation," has, for some years past, occupied the public attention, to a great extent, attended, however, by such varied reports, that even medical men are somewhat at a loss to make up an opinion as to its value, since, while some writers tell us of the unparalleled success of Mr. Civiale, others give us accounts of repeated and decided failures. Thus, whatever success may in reality have attended this operation abroad, full confidence is not placed in it here, and many are disposed to abandon it altogether, because first attempts have not been crowned with that success to be attained only by careful and expert operators.

The idea of destroying a calculus within the body, is by no means of recent date, as is proved by reference to the writings of SANCTORIUS, ALBUCASIS, AMBROSE PARE, FRANCO, &c. and, in too well-known instances, those of the monk of Citeaux, and Colonel Martin, calculi were actually broken up, or ground away, in the bladder.

Various plans have been suggested, founded upon chemical solution, the solvents to be applied, either directly, by injection into the bladder, or indirectly, through the medium of the circulation. Whatever the chemists may now effect in the latter way, and judging from what has been done, we are prepared for almost any thing; still there are abundant reasons for believing that this will not ultimately constitute the safest, or even an effectual means of getting rid of urinary calculi. It has been proposed likewise to catch the stone in a small bag introduced through a tube, and then to inject into this bag some powerful solvent, thus destroying the stone at once, without injuring the bladder. The difficulties in the way of accomplishing this are obvious; and it is sufficient to say, that no means of obviating them have been, or seem likely to be, discovered. It thus seems probable that nothing will be effected by chemical solvents, and that we must resort to mechanical means; we shall proceed, therefore, to notice the instruments proposed for this purpose within a few years.

M. Gruithuisen, of Munich, was the first surgeon in modern times, who made any considerable step towards devising a mechanical means of destroying calculi in the urinary bladder. In a Memoir published in the Medico-Chirurgical Journal, of Saltzbourg, for March, 1813, he asks, "ought we to renounce the hope formerly entertained, of being able one day to destroy stones in the bladder by mechanical or chemical means?" He then goes on to observe—"During five years do I hesitate to promulgate my ideas on the artificial means proper for dissolving, and grinding stone in the bladder, waiting in vain for a favourable opportunity to make the application upon the living subject, before communicating it to the public. Besides, the stone being very rare in the environs of Munich, my scientific labours prevent me giving myself up to practice for some years past; and we know, moreover, how difficult it is to obtain a patient to serve as a trial for an operation not yet attempted. I have well weighed, and partly profited by the counsels given me, and the objections made by skilful physicians and surgeons—but I have, nevertheless, persevered in the project of publishing my ideas upon this subject, sustained as I was by the hope of succeeding, some day perhaps, in entirely erasing from the list of surgical operations, one so dangerous and severe as that of lithotomy. I will then expose to the public, as clearly as I can, what I consider in this affair as theoretically possible, and what can be obtained with mathematical certainty," &c. Again, "I shall present here only trials which have been made at times, or which can be executed in perfect safety." The plan which Gruithuisen had in view, was to dissolve a stone by passing a current of water upon it, which was to be kept up for some time; this he accomplished by means of two *straight* tubes, one within the other, so that the fluid, which descended by its gravity from a height, and which was brought to act upon the calculus, by means of one tube, had a ready exit by the other, and thus a constant stream was maintained. He says, that he has permitted cold well water to fall, guttatim, for twenty-four hours upon a fragment of stone composed of urate of ammonia. That this piece, which weighed a scruple before the operation, was reduced to nineteen and a half grains—that, not only was it reduced in bulk, but that it was more friable; and, that he believes, in this operation, the gelatine to be dissolved, &c. He then adds, since cold water acts with so much power, when warmed its effect must be increased. To augment its dissolving power still more, he proposes adding such articles as may decompose the stone. To do this, it is required, of course, first to ascertain its composition. As regards the instrument, he says, "our plan is entirely founded upon the possibility of sounding male subjects with a straight catheter. But we are so much imbued with the ancient maxim, which requires that a catheter should imitate exactly the curvature of the urethra, that many practitioners cannot conceive it possible to introduce a straight sound into the bladder of a man, and declare that it is a thing absolutely impracticable. To this I answer that the thing must be practicable, since it has been done. I have myself introduced, without any difficulty, into the bladder of two living men, glass tubes, rounded at their anterior extremity, having three or four lines in diameter. I have done the same thing on the dead body, and believe, moreover, that it is much more easy to sound the bladder with a straight, than with a crooked catheter. I spoke of this—but they turned deaf ears to me: then, to confound the most incredulous, I resolved to prove my assertion by a public experiment." This was made, and all their doubts removed. He says further, "What I advance will appear less exaggerated, when we know that the Egyptians dilated the urethra, in such a manner, by means of sounds, that they could push the stone from the bladder into this canal by means of the finger passed into the anus." A fact attested by PROSPER ALPINUS. After describing the mode of introducing a straight sound, he adds—"Our intention is not to extract stones from the bladder, such as they are, in their natural magnitude, but only to divide them in the bladder by means of drills, or to soften and dissolve them by the aid of chemical agents." Again—"We can introduce, in most individuals, sounds from three to four lines in diameter, a size sufficient to attempt upon the stone all that is required to destroy it." He finally proposed to perforate the calculi with holes, in order more effectually to apply the solvent.

Mr. Gruithuisen next proceeds to describe the various instruments, of his own contrivance, for effecting the purposes he had detailed: and his memoir is accompanied by drawings of them, with minute descriptions of all their parts. He concludes by saying—"Other practitioners will not delay to perfect these instruments, and to invent others more convenient; for in the arts we arrive step by step, and in starting from a preconceived idea; whilst we do not reach to science but by the medium of experience." Fruitful in resources, he proposes, in case of difficulty in catching a stone in the forceps, that it should be perforated by means of galvanism; and he describes instruments calculated to effect this end.

Such is the memoir of Gruithuisen, establishing beyond all doubt, the justness of his claims upon the French surgeons to originality. So early as the year 1803, his hopes were awakened of being able to relieve those labouring under the stone, without resorting to any dangerous operation, and they are likely in part to be realized.

Thus far did Gruithuisen go, but he did not procure a case for the trial of his plan, being too poor to incur the expense of making instruments, and being entirely unaided by his fellow practitioners, who had no confidence in the success of his proposal. In this state was the subject left dormant for some years, until it was revived in Paris by two gentlemen, Messrs. Leroy and Civiale, who are to this day disputing the point of priority. It appears, however, to be pretty well settled, that Mr. Civiale was the first in France to devise instruments for seizing and boring the stone, but that the merit of contriving the first complete apparatus, one susceptible of application, belongs to Mr. Leroy. Mr. Civiale and others have since variously modified or improved these instruments, and at present they have arrived at a considerable degree of perfection. Among the improvers of this operation is a German, Baron Heurteloup, who has invented some instruments of a complicated nature, the mechanism of which he as yet keeps a secret, but which he has shown and used publicly at the Hospital of the School of Medicine, and at the Hôtel Dieu. He uses two distinct instruments: one for seizing and grinding a calculus when large, by successive perforations; the other for crushing it, if small, in a single operation. The latter, termed "brise-pierre," consists of a strong tube of the usual diameter, in which are enclosed two shafts or blades; these are attached to a handle at one end, by which they are moved, and terminate at the other, in two projecting scoops or spoon-like knobs, rough, and armed with small teeth on their inner surfaces; the movement by which they protrude from the tube, and which afterwards retracts them within it, is alternate; that is, first one blade is moved, then the other, and so on in succession. The object of this arrangement is, that all danger of including the coats of the bladder between them may be avoided, which advantage would not be so certainly attained, were they retracted together, an objection applicable to all other instruments of this nature. Having introduced this into the bladder and found the stone, the blades are opened by means of a crank attached to the handle, forming a very powerful lever; the stone, if small, is seized and crushed into numberless small fragments. The hardness of the calculus is not at all a matter of consideration, size being the only bar to its application, for it is possessed of such great power as readily to destroy the hardest calculi that can form in the bladder. We witnessed its employment in one case, when a single introduction of the instrument succeeded completely in destroying the stone, which passed off in the course of the day, in the form of gravel. So easily was this accomplished, that the operator himself was not aware of what he had done, until afterwards, when the patient discovered in passing his urine, that this gravel made its appearance. On subsequent examination, no remnant of the former calculus was found.

Now, although this operation is a very ingenious one, yet it is evidently applicable to a very limited number of cases, to those only indeed which apply for relief, before the stone has attained a size greater than that of a filbert or hickory-nut, as beyond this, there would not be much probability of succeeding. Mr. AMUSSAT has a small instrument for extracting portions of calculi that may be arrested in the urethra; it appears to me dangerous, and likely to include the coats of that canal, and also of the bladder, if carried into it, with a view of catching small pieces of stones that have been ground or broken up. This is an insurmountable objection to its employment.

The instrument we shall next speak of is that of Mr. Leroy, as being, we think, more complete than that of Mr. C. who will not now adopt any improvements introduced by other persons. It is Mr. Leroy's instrument which I have seen frequently used, and which I have brought out with me, in the hope of our one day reaping some advantage in this country, from its general adoption. In England and Germany, as well as in France, it has already been successfully employed, and it is to be hoped that we will not be backward in giving a *fair trial* to the operation. This instrument consists of a silver tube nearly twelve inches in length, and about four lines in diameter, for a full grown man; for younger subjects it is made proportionably smaller—within this, is another tube made of steel, and terminating in three elastic prongs, which form the forceps for the purpose of catching and holding the stone. This second tube is much longer than the other first mentioned, and is moved within it, so that in protruding it, the three blades expand by their elasticity, and are closed again by drawing them within the silver tube. The stone being held in this manner by the forceps, a drill occupying the second tube, and turned by means of a pulley and bow, comes in contact with it, thus grinding the stone into a fine gravel. This drill is kept in contact with the stone, as the boring progresses by means of a wire spring constantly pushing it forward. The whole instrument thus constituted, is attached to a handle, after its introduction, which is thus managed. The forceps embracing the projecting head of the drill, are closed in such a manner as to form a rounded knob, the irregularities of which are filled with tallow. The patient is placed on his back, near the lower part of the bed, the knees being bent, and the thighs drawn up towards the abdomen. The surgeon places himself directly opposite, at the foot of the bed, as if he were going to operate for lithotomy; in this way, every advantage is afforded the surgeon, who can handle his instruments with ease, both to himself and to his patient. A contrivance is sometimes used for supporting the patient's feet beyond the bed by means of small, flat foot-boards, attached by a screw, and removed at pleasure. This allows the operator to approach nearer to the patient, and consequently to have greater command of the instrument. Having passed the whole instrument, properly prepared, into the bladder, and the stone being felt, the forceps are expanded, and it is enclosed within their grasp. The drill is next put in action, and the operation completed by boring many holes in succession. The bladder, if possible, must be kept moderately distended with warm water, which can be injected through the silver tube, without withdrawing it. This mainly constitutes the process, which may be repeated any number of times required to effect the complete destruction of the calculus.

Added to this instrument, there is a drill of peculiar structure, which is introduced, like the others, and then by means of a screw in the handle, two prongs are made to protrude each half an inch, so that in causing them to project gradually, the stone is ultimately perforated by a hole, whose diameter would be an inch. Consequently, if a calculus have less diameter than an inch, it must be ground to pieces at once.

Such is the instrument best calculated among those at present *known*, to effect the end for which it is employed. That which I possess, was made under the immediate inspection of Mr. Leroy, and consequently wanting in nothing, as yet thought necessary to render it complete. From what I saw of Mr. Heurteloup's instrument, it appears to be superior to any other, having besides other improvements, an arrangement by which the stone can be turned in the forceps, so as to present another surface to the action of the drill, and this is done without letting it drop into the bladder. But his instruments are so complicated and difficult to manage, that he has determined, he informs me, their mechanism shall not be known, until a hospital has been granted him, where he can establish their merits, before others have injured their character, by not understanding them.

I was much pleased with the facility with which Mr. Civiale invariably caught the stone. This is decidedly the greatest difficulty in the operation, and one which, in a great measure, has caused the numerous failures others have met with in this country and elsewhere. In one case, that of an elderly gentleman, which Mr. C. was kind enough to take me to witness, the whole operation, as well as I can recollect, did not occupy more than five minutes, from the introduction of the instrument, to its removal; this was the second application of it, and I afterwards learned, that at the next visit, no evidence of any calculus remaining in the bladder existed. Nothing but practice can enable a man to overcome this difficulty, as it is a peculiar tact, which but few can possess, and that to be obtained only by constantly handling the instruments. The torture which may be inflicted, or the comparative slight degree of pain experienced by the patient, will depend entirely upon the manner in which this is done; in fact, there is scarcely an operation in surgery requiring more skill and management than this, or in which the result so much depends upon the dexterity of the operator. This circumstance alone is sufficient to account for so many having failed, while Mr. C. was meeting with such success, as to attract patients from all parts; he has undoubtedly performed the operation more frequently and more successfully than any other practitioner in Europe. He has the credit of being the first to put Gruithuisen's new views to the test of experiment, and to succeed in establishing their value, and he has acquired a dexterity astonishing to all who witness his cases, and the ease with which he manages the instrument.

That each one may form his own conclusions on this subject, and examine facts apart from mere reputation, I will subjoin a summary of cases, published by Mr. Civiale himself.

In the early part of the year 1827, a letter was presented to the Academy of Sciences at Paris, by Mr. Heurteloup, who is a rival of Mr. C.'s, containing a review of his work. From this letter it appears that eighty-two cases had presented themselves to Mr. C. to be relieved from the stone. Of these, forty-eight were cured, thirty-one died, and three retained their calculi: of the forty-eight cured, forty were submitted to lithontripty only; the others were cut and the stone extracted. Again, of the thirty-one dead, eight died after Mr. C.'s attempts with his instruments. So that of forty-eight upon whom his instruments were employed, eight lost their lives, being one-sixth. This is certainly a very great proportion, but we must recollect that this was prior to 1826, since which time important improvements have been introduced, and of course greater skill acquired.

This operation has been tried in several instances, in this city, by some of our most distinguished operators; in every case it was either fatal, (that is to say, the patient upon whom the trial was made, died a short time after,) or proving unsuccessful, it was abandoned, and the lateral operation resorted to. Now, notwithstanding the very different results in France, these failures have induced some to declare in round terms, that the operation will not succeed, and that lithotomy is still preferable. This is certainly a hasty and most unwarrantable conclusion; and yet I confess entertaining such sentiments myself, immediately subsequent to the first attempts made in this city; these prejudices were however dissipated by the cases which I subsequently witnessed.

Let us now consider the objections that have been advanced against the success of lithontripty. It is said to be more painful than lithotomy—more tedious and uncertain—dangerous from inflammation of the bladder—and very difficult in the performance, &c.

The first charge amounts to this, that patients who have had their bladders explored by rudely-formed instruments, in inexperienced hands, have suffered more pain than they afterwards felt on being cut for the stone. In lithontripty, both the pain and the success will depend upon the propriety of the instruments employed, and the dexterity and care with which they are used. The patient too, must be placed favourably for the surgeon, or he cannot use that dexterous manipulation so much required. It cannot be affirmed that the operation of lithontripty, and especially the first introduction of the instruments, is devoid of pain, for I have witnessed the contrary; but it is not always necessarily more painful than lithotomy.* I have seen it performed with scarcely any complaint of inconvenience escaping the patient, who meets his surgeon, for a repetition of the operation, without fear or hesitation. In the female subject, there would be very little inconvenience or difficulty in catching and destroying a calculus—at all events a better operation, and less painful than extracting it by the dilatation of the urethra.

In the second place, it has been urged that it is tedious in the performance, and uncertain in the result. True, it often, yet not invariably, requires to be repeated; but it does not stand alone in surgery in this particular. An interval of a few days being allowed to take place between each boring, certainly retards the final cure, which sometimes, in irritable constitutions, requires some weeks; but in the mean time the patient is not always debarred from attending to his usual avocations: indeed, I have known a gentleman to get up from the bed, on which he has just been operated upon, and enjoy a walk with his surgeon, with as much ease and comfort as if nothing had been done. On this point then there can be no sort of comparison between the two operations. Who would not prefer this moderate inconvenience, without loss of liberty, to a close confinement to bed for two or three weeks? To this it may be replied, make this operation as *certain* as lithotomy, and devoid of its danger or severity, and there can be no diversity of sentiment as to a choice between them. But this constitutes another point, and will be presently examined, separately. It must be recollected, in speaking of lithontripty as tedious, that sometimes the stone is completely destroyed in a single operation, and when the stone is small, this may always be anticipated; many calculi too, are so soft, as easily to be broken up, even when of some considerable size, in two, or at most three, sittings.

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* While on the subject, I would suggest the propriety of using a weak solution of opium, which, being injected into the bladder, would probably diminish its too great sensibility; or, if preferred, a suppository of opium might be introduced into the rectum.

In being *uncertain*, as has been alleged against lithontripty, it would only partake of the character of many other operations, which are nevertheless daily performed; but let us inquire in what respect it is uncertain. It is said that we cannot be sure of having removed every portion of the calculus, and that many small particles may thus remain, to form nuclei for subsequent depositions, and consequently a return of the disease in an aggravated form; we must then ascertain with what proof or probability *this* has been advanced. If subsequent experience shall prove it correct, this is a most important objection, and sufficient almost to destroy all confidence in the operation, unless it can by some means be overcome. But as yet we do not know of its having occurred, and therefore we can only say, that as far as our observation extends, in no one case which has been reported cured, could any trace of a portion of calculus remaining in the bladder be discovered, either by the sound, or by any symptoms on the part of the patient. So much for the proof; and as to the probability of such an occurrence, there is this against it: 1st, the feelings of the patient, whose bladder is likely soon to indicate the continued presence of an irritating body; and 2d, the instruments employed for exploring the bladder, are such as to touch in succession every part, even when irregularly contracted. This charge then, may be dismissed with the single remark, that it is both unjust and premature, inasmuch as time alone can decide it.

But there is one circumstance not to be overlooked, for it is of no small importance, both to the patient and to the surgeon. The fragments of the stone, so far from remaining in the bladder, generally find their way very soon into the urethra, which is somewhat dilated by the lithontriptor, and sometimes are there arrested. Mr. Civiale, without any ceremony, proceeds immediately to extract them by means of a single blade, or prong of similar construction, with the forceps, that is, straight, with the extremity slightly curved inwards. In doing this, I have seen him not only inflict great pain upon his patient, but even draw blood in dragging the fragment along the urethra. The case in which this occurred, was a man in the hospital La Pitié, upon whom Mr. C. operated about ten times, six of which I witnessed. The patient entirely recovered. Several instruments have been contrived for the extraction of these fragments, such as those of Mr. Amussat, Sir A. Cooper, &c. &c. but not, as far as I am acquainted, with decided success. Mr. Costello, a pupil of Mr. Civiale, has lately invented an instrument which I have not seen.

In the third place, it is said that the operation is *dangerous*, and liable to produce inflammation of the bladder, and perhaps sometimes death. To say nothing of the fact, that this inference is drawn from imperfect trials, with still more imperfect means, it may be observed, that, like most other operations, the danger will in a measure depend upon the skill and capability of the operator. One or two cases are reported in this city, and some others in Europe, which terminated fatally, subsequent to trials made to destroy the stone in the bladder. Although it is by no means ascertained what was the immediate cause of death in these instances, yet there seems a disposition to attribute them in a great measure to injury done to the bladder, by the instruments employed. Be this as it may, the observations already made in relation to the very imperfect and incompetent instruments employed, and the difficulties consequent upon a limited experience, will apply in this place, nor can we possibly hope for success, without enlisting every advantage in our favour. Mr. Civiale, according to his own reports, has lost patients after the operation, but as the minute details of these cases are not known, I am not prepared to say how far it was instrumental in producing death.

There is something not a little curious in the proximate cause of death in these cases. How is it, that irritation of the mucous coat of the bladder, for we know it may and does exist, without implicating the peritoneal covering; how is it, that this simple irritation, without even becoming inflammation, produces death? By way of illustration, the following case, extracted from Hufeland's Journal of last year, may be adduced. Several fruitless attempts were made in a patient to catch a stone with the lithontriptor, but it always slipt from the forceps, and after causing a good deal of pain, the attempt was abandoned; the patient was soon after attacked with anxiety, restlessness, &c. and about the fourth day expired. Upon examination, no marks whatever of *inflammation* existed in the bladder, which contained a stone much too large for the forceps to embrace; all the abdominal and thoracic viscera were in a healthy condition; but the brain was completely gorged with blood, in fact apoplectic, to which they attributed his death. If this be correct, how, I ask, is this irritation conveyed from one organ, which it leaves in a sound state, to another which it fatally disorganizes?

The operation of lithontripty may be said to be still in its infancy, admitting yet of great improvements; I do not however hesitate, most unequivocally to declare, as my conscientious belief, that even at this time, with a judicious selection of cases, a proper set of instruments, made with all the improvements lately adopted, and the requisite degree of caution in their application, no unhappy results will occur, to destroy the pleasing anticipations now entertained by many on this subject.

As to the last charge of difficulty in the performance, I shall not be expected to say much in relation to it; the difficulty of any operation will only tend to take it out of the hands of the many, and to place it in the power of a few, who will persevere to overcome every obstacle, and who therefore must finally succeed.

I have thus far been endeavouring to defend this new operation from unmerited censure and most unjust condemnation; but that I may not be accused of running into the opposite extreme, I will close these remarks by subjoining a conclusion drawn from what I have myself witnessed, aided by the evidence of some of my friends. In the first place, it is not to be denied, that, at the present day, the cases to which lithontripty is applicable with a probability of success, are comparatively few; but it so happens, that the faith necessary to gain cases for trial, constitutes the principal mean by which its subsequent fame must be supported; for, as the operation gains in the public confidence, so will cases present themselves in the first stage of the disease, and of course more favourable for success; and were this operation sufficiently known and confided in, to induce patients to apply early for relief, that is, upon the first occurrence of the symptoms, a large majority of cases would most indubitably be effectually cured. Persons would not then allow a stone to increase in the bladder, year after year, from dread of a terrible operation; for *cutting*, in the eyes of the world, is always a dreadful affair, however insignificant the operation may in reality be. It is this inducement, to early application, for the removal of urinary calculi, that is the great claim, lithontripty has to our serious attention. A case that might be considered best adapted to the complete success of this operation, and with comparative little inconvenience to the patient, is as follows:—1st. Where the stone is not flat and thin, resembling a piece of slate, where it is not adherent, or encysted, and is not larger than an ordinary-sized shell-bark, for then it can mostly be destroyed in one or two sittings; not forgetting, however, that much larger stones have been destroyed. 2dly. Where the bladder is, to a certain extent, in a sound state, free from incrustations, which can only be removed by lithotomy, but principally in being devoid of irritation, so common in cases of long standing. 3dly. Where the urethra and prostate gland are sufficiently free from disease to allow of the introduction of the instruments. To these observations I have only to add, that, where the calculus is of a soft or friable texture, even though of some size, it might be destroyed at once, whereas in lithotomy there is no distinction of cases, since every stone requiring an operation subjects the patient to precisely the same danger.

There appears every reason to believe, that in the hands of a man of discrimination and judgment, and with a proper selection of cases, the operation of lithontripty ought not to fail once in a hundred cases, and it ought never to prove fatal, or even to effect any serious injury; this, however, cannot be anticipated, taking all cases as they occur, and there will still be left for the operation of lithotomy, many cases totally unmanageable by these instruments; as where the stone is too large, or encysted, where the bladder is too irritable, or incrusted with a calcareous deposit, where the prostate is diseased, &c. &c. I wish therefore to be considered, not a blind enthusiast, boldly recommending this operation, as suitable to every case of stone, and as calculated to supersede every other, but rather as one disposed to cherish the improvements of our art, and convinced of the public benefit to be derived from a judicious use of instruments, and other means, for destroying a stone within the bladder.

ART. XIII. *Case of Concealed Phthisis, illustrative of Sympathetic Irritation.* By WILLIAM M. FAHNESTOCK, M. D.

THERE is nothing more embarrassing to the practitioner of medicine than the false guise which disease sometimes puts on to elude his vigilance to save a suffering patient, many organic diseases being discovered on post mortem examinations, whose existence were not previously evinced by a single symptom. Numerous instances of diseases of the stomach are on record, in which high inflammation and mortification of this important viscus have been found after death where there had not been any previous suspicions of its suffering: so also abscesses of the liver without any mark of hepatitis; tubercles of the lungs arriving at full maturation, destitute of a single sign to indicate consumption; and many others which it is not necessary to mention.

The case now presented is interesting from the phenomena which presented of disease of various organs, whilst the symptoms of the real disorganization were absent. The patient, who was the wife of a medical friend in the country, with whom we attended the case, was ætat. 24, of small stature, brown eyes, dark hair, brunette complexion, and irritable temperament. She was married at an early age, and had children very rapidly: in the eighth year of connubial life she became the mother of her sixth child, which reduced her to a very delicate state of health. In October, 1824, she was delivered of her last child, which was followed by long parturient debility; though in the course of a month, she was able to leave her chamber, and attend to the duties of nurse, which office she always performed with much maternal solicitude and devotion. Towards Christmas following, she experienced some considerable constriction of the chest, præcordial uneasiness and deep-seated obtuse pain an inch or two below the clavicles, which was treated by domestic remedies. In the course of a week it increased very much, so as to produce dyspnœa, dry cough, &c. &c. Small doses of ipecacuanha in spt. nitr. dulc. were given with much benefit. A few days afterwards, however, the pain became more acute, and extended through the shoulders to the neck and back part of the head; skin husky; bowels constipated; pulse 100. Sixteen ounces of blood were taken from the arm, and some purgative medicine recommended.

January 7th.—The loss of blood and active catharsis have not produced any mitigation of symptoms, which seem to be advancing with greater severity; pulse 120; skin dry; pain of the head lancinating, and extending forward along the sides; eyes protuberant and watchful; fever recurring every afternoon. Twelve ounces more of blood were detracted; laxatives enjoined to be used daily; a refrigerant mixture to be administered every two hours, and a Dover's powder at night; together with an epispastic to the back of the neck, and sinapisms to the feet.

10th.—Complains of much debility, and aggravated symptoms; the pain continues to advance forward to the temples, and over the face; pulse 140, and weak. The head was shaved, and a blister applied, and the tincture of digitalis given to reduce vascular action; attention was also directed to keep the bowels in a soluble state.

13th.—No diminution of pulse, no abatement of pain, which now has descended to the teeth, where it seems to concentrate its violence, tormenting the distressed sufferer with the most excruciating agony. Fomentations and scarifications recommended, and the remedies to the general system continued.

16th.—All the remedies, as fomentations, sinapisms, and blisters applied externally, and fumigations, anodyne applications, and scarifications to the gums, were most sedulously pursued without any relief, and we were obliged, contrary to our wishes, and after wasting every argument to dissuade the patient from the determination, which now became peremptory, to remove four of the molar teeth of the upper jaw, as the last prospect of affording respite from her sufferings.

20th.—As was predicted, the removal of the teeth only served to throw the affection upon some more vital organ; they had been extracted but a few hours when the former symptoms manifested themselves in the epigastric region, attended by much pain and oppression; and preceded by rigors and nausea. At this period the late Dr. GEORGE BENSEL, of Germantown, visited the patient with us, and he united in the propriety of immediately applying a blister over the stomach,* and proposed a table-spoonful of the following mixture every two hours:—℞. Sal. nitre, ʒj.; sacch. alb. ʒij.; emet. tart. gr. ij.; aqua puræ, ℥vj.; lavd. comp. ʒij.—M.

22d.—The nitrous mixture made a very powerful impression on the stomach; producing a sensation of coldness and spasm, and reduced the pulse to 110, but it still continued to fluctuate, and rise to 130. Calomel in small doses, and enemata ordered.

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* An unconquerable dread of cups and leeches, which in the country often deprives the physician of his best resource, prevented our availing ourselves of their application to the head and epigastrium.

24th.—No sensible change; calomel and enemata continued; and savin ointment applied to the irritated surface of the blister.

27th.—In statu quo; opium and ipecacuanha added to the calomel, and the blister renewed.

30th.—The symptoms continued with but little variation till last evening; during the night another mitigation took place. All the pain and uneasiness left the stomach, and planted itself in the thorax. The following evening there was agitation and rupture of an abscess in the chest, which poured forth pus so rapidly as to threaten immediate suffocation. A few days of profuse discharge, accompanied with regular hectic fever, night sweats, and colliquative diarrhœa, exhausted life, and numbered her among the victims of consumption.

This case, no doubt, had we been permitted an autopsic investigation, would have revealed some very interesting pathological phenomena. Any speculations on the probable condition of the organs would be indulging in too great a license of the imagination: a stronger instance, however, of local irritation manifesting itself on other organs, whilst that affected remained tranquil, never came under our observation; nor do we know of a stronger case to substantiate the doctrine of associated actions, and reciprocal dependencies; that is, of sympathetic actions, and the reciprocity of associations between different organs, as well both in the diseased, as in the normal state. Here the disease first discovered itself in the thorax, the seat of irritation, the symptoms then passed to the head, and expended their violence there, leaving the lungs, comparatively, quite at ease; then affected the teeth, and on their removal went to the stomach, leaving the head perfectly calm and free of distress, and then returned to the starting point; during the whole of which circuit, no two localities suffered at the same time, but when it left one seat it carried away every symptom of diseased action, and displayed it on the new abode; evidencing, not a continuous chain of morbid associations, but a clear and distinct metastasis from one place to another, while at the same time the original irritation continued to advance through all its stages unknown and unfelt.

The metastasis of disease has been remarked in all ages, but the manner of its communication from one organ to another, has afforded much disputation It is not our wish to engage in any disquisitions on mooted theories; our object is merely to inculcate a few practical hints, by establishing correct views of the laws of the animal economy. And it may be asked in the language of M. Begin, "what have been the causes of errors so dangerous in the treatment of the most frequent diseases? They are," he adds, "the results of obstinacy in rejecting all theoretical explanation, tending to investigate the living economy, and determine the extent of the affections in the viscera, whilst by a mere examination of external objects, the nature, the causes, and the seats were altogether misunderstood."* The alternate action, or the reciprocation of action, which is often observed to take place in rheumatism, with the alimentary canal, and more particularly with dysentery, and the almost instantaneous transition of pain in podagra from the toe of one foot to the other, and to the stomach, proves incontestably the law of sympathetic communication. Worms producing epilepsy and chorea, the recession of eruptive diseases of the dermoid tissue to the mucous membrane of the primæ viæ might be adduced to the same end, but it is not necessary on this subject to reduplicate the many thousand facts corroborative of the position. The present case sustains the premises most distinctly and incontrovertibly, and offers a useful lesson.

There is so intimate a sympathy existing between some organs, as between the stomach and the head, the stomach and the lungs, &c. that it is not unfrequent for disease to be seated in one tissue, and the symptoms displayed in another; and one of not uncommon occurrence, pseudo-phthisis, sympathetic of irritation of the stomach, proves obstinate and even fatal from our overlooking the original seat, when it would not be difficult to remedy the evil, had we a correct view of its nature. M. Begin has noticed these affections in treating of pulmonary irritations. "A very important organ, the stomach, says he, participates in many cases of pulmonary inflammations. This complication of pneumonia with gastritis, or gastro-enteritis, constitutes one of the most dangerous diseases to which the human species is liable. The physician must then attempt to discover which of the two inflammations is primitive, and has given rise to the other. Bilious pneumonia, or that which is complicated with gastritis, requires on the one hand, the means indicated above; on the other, those debilitating medications applicable to the digestive canal. It is especially proper to insist on directing the treatment to that affection which is most violent, and appears to exercise a controul over the others. It should be remembered that in some constitutions the symptoms of pneumonitis are almost illusory, and being the sympathetic product of gastritis, they disappear with it."†

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* Therapeutics.

† Ibid.

Art. XIV. *Observations on the Endemic Fever of the Carolinas, as it now prevails in the Counties of Sampson and Duplin.* By A. Hopton, M. D. of Clinton, North Carolina.

A FEVER possessing peculiarities of a complicated *type* recently made its appearance here, to the great alarm of our citizens. This disease showed itself for the first time, as far as I have been able to trace its origin, among the negroes of Elias Faison, and prevailed with prodigious mortality, killing nearly all it attacked.

It had seemingly many pretensions to a contagious character, for in whatever family it appeared, it affected every individual indiscriminately, not even sparing the infant at the breast. The old, the young, robust, weakly, infirm, healthy, or sickly, men, women, and children, were all alike subject to its attack.

But the disease did not exhibit the same phenomena in all. In some its invasion was characterized by the usual precursors of fevers; in others the ordinary antecedents were scarcely cognizable. Whilst its assault was at times marked by symptoms of high inflammatory action, in others the *nervous system* appeared principally affected. In many it seemed to vent itself solely, but with great force on the biliary organs.

Sometimes the attack commenced with severe rigor; at others there was no evident chill. Occasionally the accession was so very insidious as to induce a belief that it would prove either very slight, or of very short duration; but in general, when the fever commenced in this way, it assumed early a typhoid character, and continued in despite of remedies, to the third, and not unfrequently to the sixth week.

The brain, or its membranes, in some, were the principal seat of the disease, as shown by symptoms of cephalitis, congestion, or oppression; in others the lungs and bronchia, or their membranes, were affected with pleurisy or pneumonia. The gastric apparatus frequently felt its influence; the liver generally, and occasionally the kidneys and peritoneum. In fact, there was no organ or viscus, whether cerebral, thoracic, or abdominal, but was more or less affected by this disease, confirming the observations of Dr. Fordyce, that although fever is a disease of the whole system, yet it does not affect all parts of it alike, but some parts are at times more affected by it than others.

Sometimes the patients seemed to labour under a lethargy or stupor from the beginning, and would sleep profoundly, unless roused, through the whole progress of the disease. In these cases it bore a striking analogy to the *cataphora* of SAUVAGES, and *synochus soporosus* of GOOD. In all such forms, the lancet was decidedly the best therapeutical agent, provided it was employed early, and fearlessly. The system here laboured under an oppression (rather than a collapse,) of the brain, and consequently a corresponding oppression, of the sensorial powers, and as soon as the requisite quantum of blood was abstracted, this oppression was removed, and reaction took place, with the immediate development of the regular and uniform balance of sensorial power.

In many there was a yellowness of the skin and eyes, the result evidently of a disordered function of the hepatic apparatus, with a preternatural secretion of bile, and a consequent absorption of it into the circulation. Here it had some resemblance to the endemic remittent of the climate, and approximated closely the *synochus biliosa* of Galen, and *synochus flavosa* of Good. In this, as in the common bilious fever of the country, emetics followed by calomel, both to purge, and afterwards to excite a gentle ptyalism, was found upon trial to be the most judicious, as well as the most efficient practice.

Whenever the fever was associated with local pain or inflammation of particular organs, as the brain, liver, lungs, &c. it was in such instances strictly allied to the inflammatory typhus of ARMSTRONG, and the synochus of other writers. These cases were most successfully combated by bleeding, purging, and blistering.

The disease was sometimes attended with a dry, hot skin, inordinate thirst, excessive restlessness, and want of sleep; while these symptoms raged violently, there was either great oppression of the brain, or a sudden exhaustion of sensorial power, with coma and somnolency. Often there was a dull and obtuse, rather than any intense pain of the head.

In some cases there was *lethargy* or *coma*, a low muttering delirium interposed with short snatches of stertorous sleep, or incongruous loquacity and fretfulness. While the sleep in many was calm and natural, it was in others, on the contrary, disturbed, unrefreshing, or interrupted by fearful dreams; sometimes altogether absent, and attended with protracted watchings, followed by delirium and death.

The delirium was often violent, occurring generally about the fifth day, accompanied with great corporeal excitement, and a disposition in some to commit acts of violence. In many it did not commence, until late in the disease; in others it began with the accession of the fever, and usually continued with more or less violence through a long period, and then often terminated fatally.

The intellectual and sensorial powers were in all greatly disordered or impaired, characterized by a weakness of sensation, wandering of the mind, dullness of perception, loss of memory; or, on the contrary, by a remarkable acuteness of the perception, unmeaning flights of fancy, and other aberrations of intellect. In some the faculties of the mind continued perverted for a considerable period after recovery.

In some cases there were faintings, tremors, hiccup, spasms, loss of speech, difficult respiration, nausea, vomiting, difficult deglutition, irregularity of the pulse, coldness of the extremities, involuntary excretions from an atony of the sphincters, &c. &c. These symptoms, wherever they occurred, were invariably the harbingers of a fatal issue. In one instance there was a perfect paralysis of the right side, which terminated fatally. In another a complete loss of speech, *aphonia*, which continued several weeks after convalescence.

This fever seldom terminated under twenty-eight or thirty days; and in some instances not under sixty. The symptoms marking a recovery were various, depending entirely upon the diversity of constitutions, temperaments, and habits, on which it had previously operated. In some there was a prompt convalescence. In others the recovery was extremely tedious, and relapses frequent. The head often continued weak for many weeks during the convalescent period, and the stomach peculiarly so for a considerable time after the disappearance of all febrile action.

Where the fever assumed a *malignant type*, the following phenomena characterized its progress:—Debility extreme—pulse hurried, irregular, small, frequent, and tremulous—skin hot, communicating to the fingers a peculiar sensation not easily described, parched, dry, or soaked in a clammy sweat—breath hot and fetid—teeth and gums incrusted with a dark, thick, tenacious fur—tongue coated with a dark brown, livid, or black crust—lips dry, swollen, purple, or chopped—urine yellow, brown, or saffron-coloured, thick, muddy, scanty, and offensive—feces dark-brown, green, and black, or pitchy, resembling tar, sometimes scanty, dry, and hard, though generally colliquative, highly offensive, passed profusely and insensibly—the stomach, besides the usual concomitants of gastric fever, viz. nausea, vomiting, and loathing of food, was often inflated, tender to the touch, or collapsed and hollow, with anguish and inconceivable anxiety—abdomen distended, tense, and tender, impatient of pressure, or sunk and hollow as if entirely empty, and very hard—eye dull, torpid, inexpressive, prominent, vacant, or staring; in some fixed; in others rolling, as if in quest of some object—mind excessively weak, and wandering—subsultus—coldness and shrinking of the extremities—picking at the bed-clothes—hiccup—sighing—sliding down in bed, or frequent ineffectual attempts to rise.

These symptoms did not all occur together in the same individual; but they were usually present at some period of every fatal case.

As to the *etiology* of this fever I know but little; by some it has been attributed to *malaria*, and from its extensive range, from its affecting every description of persons, whatever might have been their previous habits, temperaments, constitutions, or modes of living, whether young, old, sickly, or healthy, much may be set down to atmospherical distemperature, and something probably to *sol lunar influence.*

To support this opinion, it appears necessary to take a brief retrospect of the phenomena of the late seasons. The last summer was intensely hot and sultry, and during the autumn there were many sudden atmospherical transitions. The winter was extremely cold, and continued so for a longer period than ever known before by the oldest inhabitants. The spring opened with January lingering in the lap of May, though some of its early part was very hot and sultry, and much alternated with wet and dry. In May and June nearly the whole country was inundated with rain, overflowing the rivers and creeks, destroying bridges and mills, washing up the roads, &c. &c. thus furnishing every marsh, pool, quagmire, and swamp, with the germ of a febrile *miasm* that was subsequently, (when assisted by its necessary coagents,) to rise up in pestiferous exhalations, and vitiate the air. In proof of this position, it may be remarked, that wherever the disease prevailed with the greatest mortality, it was in the vicinage of these localities; for the most obstinate, as well as the most fatal cases, invariably occurred in the neighbourhood of mill-ponds, or large swamps; hence the origin of the disease was by many attributed to this source alone.

The fever commenced its attack early last fall, and prevailed with more or less obstinacy during the greater part of that season. During the winter it was less fatal, but in several instances very obstinate, resisting the most judicious treatment that could be devised for its cure. In the spring it again assumed great violence, equally obstinate, but less fatal than the fall before; it is now somewhat on the decline.

The fall cases were characterized by a disordered function of the liver, evinced by a preternatural secretion of bile, which was frequently vomited in great quantities, and as often colouring the skin and eyes with the yellow tint peculiar to bilious fever. The stomach was often excessively irritable, though vomiting was advantageous; and wherever an emetic could be given early, it was a perfect quietus to the disease.

The winter cases were principally a compound of pleurisy, pneumonia, and rheumatism. In some the brain was severely affected, catenated with inflammation of the lungs, constituting bilious pneumonia, or *peripneumonia typhodes*.

In the spring it was attended with various local determinations; the brain, liver, lungs, stomach, peritoneum, &c. all suffered; the three first particularly; and in some instances these were all affected during the course of the disease in the same individual.

The treatment of this fever was as diversified as its symptoms; but in most all the cases which I treated, or saw treated, blood-letting and mercury were the only efficient remedial agents; venesection was decidedly called for in every instance where there was local pain and inflammation, and there were but few cases in which they were not present. The lancet, however, was to be employed early, otherwise it afforded but little benefit; warm bathing or sponging, blisters and cupping, were necessary auxiliaries, particularly in the progress of the disease, where local pain, and inflammation, or congestion occurred, and venesection could not be employed with safety.

As a free purgative, calomel in doses of twenty or thirty grains every night and morning, or oftener, according to circumstances, followed by salts and senna, castor oil, or the compound extr. colocynth, were amongst the best remedies during the exacerbation.

In some cases the alimentary canal was so exceedingly torpid, and unsusceptible to remedial impression, that it was often extremely difficult to procure evacuations, even when attempted by the most drastic and stimulating cathartics. In one instance, calomel, gamboge, scammony, colocynth, aloes, jalap, rhubarb, castor oil, salts, senna, spt. turpentine, &c. aided by the most stimulating enemas, were all tried in vain.* Calomel was, upon the failure of these, resorted to in doses of sixty grains every four hours, and continued until the bowels were thoroughly evacuated, and the functions of the liver restored. Notwithstanding these large doses of calomel, the patient had but a very slight salivation, and recovered much sooner than others who had taken less quantities.

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* In all cases of obstinate constipation, inflammation of the ileo-cœcal valve should be suspected, and the patient treated for this affection; stimulating purgatives here invariably aggravate the mischief, increasing the tumefaction of the valve, and completely closing the passage from the ileum to the colon, and not unfrequently producing iliac passion and death.—Ed.

In most of the cases, characterized by great hepatic derangement, and a preternatural secretion of bile, emetics were highly efficacious, when employed early, and followed up by active doses of calomel.

But even this *modus medendi*, although beneficial, was not efficient of itself, in the majority of cases; hence calomel, for the purpose of exciting a slight impression upon the system was resorted to, not, however, until other remedies had been employed, as blood-letting, purging, &c. for whenever these were adequate to the cure, a salivation was of course unnecessary; but as these were sometimes insufficient, mercury was then the only remedy to be depended on. It was prescribed in small doses, and repeated every three, four, or six hours, (as emergency required,) and continued until a ptyalism was induced, or the disease yielded; and in all the instances except one, in which ptyalism took place, the patients recovered.

My reasons for adopting this plan of treatment were, that blood-letting and purging from day to day, emetics, sudorifics, refrigerants, blisters, cold and tepid ablutions, &c. &c. had all been tried, and the fever still continued. Venesection could no longer be employed; purging was dangerous on account of the debility and exhaustion; emetics were equally so; tonics and stimulants, even where they seemed to be indicated, proved in every instance highly pernicious, the mildest kind often lighting up pain and inflammation among organs, where possibly it never would have shown itself, had not the stimulus been employed. The fever still continued depending probably upon some chronic or subacute inflammation in organs, the pathological characters of which were so exceedingly occult as to render its existence altogether imperceptible to a practitioner of ordinary capacity.

In this dilemma I resorted to mercury, and in no instance had I reason to regret it. On the contrary, I have every reason to believe that in the treatment of the endemic fever of this climate, calomel, both as a purgative, and as a sialagogue, is the only remedial agent to be relied on. Some of my patients were as well acquainted with this fact as I was myself; indeed, such was the confidence that many of them had in the remedy, that they loudly demanded to be salivated, and some, lest they should not receive its specific influence in time to insure a successful triumph, took it oftener than was prescribed.

The formula I generally prefer to produce ptyalism, is calomel and Dover's powders, that is where there is no symptom to contraindicate the use of opium, otherwise the opium must be dispensed with, and the ipecacuanha substituted alone, or in place of it, the pulverized antimony, tartarized antimony, or nitras potassæ. Indeed, I frequently combine all these together, but oftener the three first.*

The above combination may be given in pill or bolus every two, three, four, or six hours. It can be made to answer at least three important indications; first, to purge actively by increasing the calomel to twenty or thirty grains; second, to sweat effectually by increasing the ipecacuanha, or exhibiting it at shorter intervals; third, to produce active emesis, by combining with the calomel a grain of tartar emetic.

Dr. CALHOUN, in his notes to Dr. Gregory's Practice, observes that typhus of the south is peculiarly benefited by a slight ptyalism. He might have ventured further, and added that all fevers of the south were peculiarly benefited by a mild ptyalism, but more particularly that fatal scourge, the bilious remittent.

I do not wish, however, to be understood as advocating the practice of an indiscriminate salivation, nothing indeed can be further from my view; I merely aim at pointing out the propriety as well as the necessity of it, in all such obstinate febrile disorders as will not yield to the ordinary remedies, when skilfully or judiciously employed.

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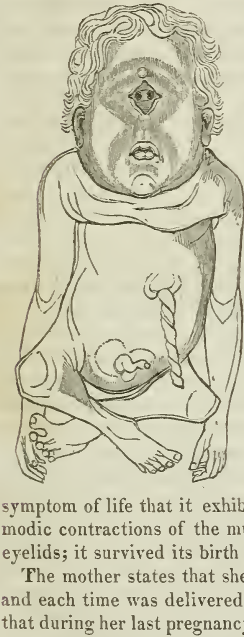
* I would observe that wherever there is a dry, hot skin, dry, white or parched tongue, much thirst, local pain, or inflammation, not previously combated by the lancet, opium is in all such cases, pathologically incompatible, and if it be ever ventured upon under such circumstances, it must be in the form of Dover's powder, or some similar formula. But where the tongue is moist, the skin soft, and the bowels open, opium may be then prescribed without the least apprehension of committing an error.

Clinton, North Carolina, Dec. 1829.

ART. XV. *Description of a Human Monster.* By W. N. DUANE, M. D. of New York. [With a Figure.]

ELIZABETH WILLIAMS, a white woman, aged thirty-one years, was admitted into the lying-in ward of the Philadelphia Alms-house, and delivered December 3d, 1829, at the full period of utero-gestation. On the rupture of the membranes there was an excessive flow of the waters, and when I arrived, which was a few moments after the birth of the child, who was born, as the mother informed me, with very little pain, the floor was literally deluged, and the waters were still streaming from every part of the bed. On examining the cord, and finding that pulsation had ceased, I divided it. The placenta was thrown off about twenty minutes afterwards, apparently without pain; it was of the ordinary size, but its whole uterine surface was in a diseased state. The uterus contracted well and promptly.



The child proved to be a monster of the Cyclops order; it uttered no cry, nor did it move its extremities; the only symptom of life that it exhibited was a feeble respiration and spasmodic contractions of the muscles of the face, and especially of the eyelids; it survived its birth only about twenty minutes.

The mother states that she has had three accouchemens previously, and each time was delivered of a male child, all of whom are living; that during her last pregnancy she has enjoyed pretty good health, but that her husband has frequently kicked her with great violence on the abdomen, and that six weeks previously to her accouchement she received great alarm from some domestic occurrence.

Post Mortem Examination.—External Aspect. The eye was situated at about the usual commencement of the middle nasal suture; it was oblong; its horizontal diameter about one inch; its perpendicular diameter about half an inch; the conjunctiva extended about one line transversely over the cornea superiorly, and bounded it inferiorly; the cornea had the shape of two circles joined on one side; there were two distinct pupils. There were four triangular lids, well furnished with ciliæ, and in the inferior angle a distinct caruncula lachrymalis, on each side of which were the punctæ. On each side of the eye, there were indistinct superciliæ. About eight lines above the eye, was a small, fleshy tubercle, of a deep-red colour, attached by a delicate neck. The cranium was thickly covered with beautiful dark hair of more than an inch in length. The chest and abdomen somewhat distorted, as seen in the figure. The penis was about three-quarters of an inch long; the testes, with the scrotum, and its raphé were wanting. The arms were unusually long, hanging down, when the body was suspended, an inch and a half below the knees. The lower extremities were small, bent at the knee, and anchilosed.

Internal appearances.—The scalp and pericranium were highly injected with blood; the latter part was unusually thick; a small fasciculus of vessels was observed running to the tubercle over the eye. Each parietal bone consisted of two pieces, united by a suture beautifully serrated and elevated; this suture was situated between the frontal and lambdoidal sutures, at about two-thirds of the distance from the former. The dura mater was much thickened, highly vascular, and adhering firmly to the cranium; there was no trace of sinuses. The tunica arachnoidea lay loosely over the cerebrum. The brain occupied only about one-half of the cranium, and presented no division into lobes. The cerebrum was smooth, soft, without convolutions, or division into hemispheres, highly injected, of a uniform dark-red colour throughout, having no distinction of medullary and cortical matter. The two lateral ventricles were much distended with water; the corpora striata and fornix were absent. The first pair of nerves could not be found, and the cribriform plate of the ethmoid was also wanting; the third, fourth, fifth, sixth, seventh, and eighth pair of nerves, as also the second, or optic, were present; but the last mentioned pair coalesced, and formed a single nerve, which penetrated the os sphenoides by a single foramen. The cerebellum was soft; arbor vitæ distinct. The tentorium was natural. The medulla oblongata was remarkably well developed.

The muscles of the eye presented a confused mass. The eye was enclosed in a single sclerotica; the choroid and retina were also single, and the former imperfect; there were two irides, two crystalline lenses, and two tunica hyaloideæ and vitreous humours.

The heads of the ribs coalesced, and arose from the three first dorsal vertebræ. The medulla spinalis was about a line and a half in thickness, and filled only one-third of the canal; it terminated, as did also the spinal column, at the third dorsal vertebræ: no trace of nerves could be detected going to the lower part of the abdomen, pelvis, or lower extremities.

The pectoral muscles, and those of the arm, well developed; the lungs had not been inflated, except the superior lobe of the left lung; heart natural.

Nothing peculiar was observed in the abdominal viscera, except that the two kidneys were contained in a single capsule; the testes were found high up in the abdomen. The two ossa ilia were united together, the sacrum being absent.

No trace of muscles could be found on the abdomen or lower extremities, their place was supplied by adipose matter.

Philadelphia Alms-house, Jan. 1830.

ART. XVI. *Case of Sea-sickness terminating in a singular affection of the Mind.* By JOHN WARE, M. D. of Boston.

I WAS called to the subject of this case on the 16th of April last. I learned, that in December, 1828, about four months before, he had sailed from Liverpool for Charleston, S. C. in his usual health. He had several times before crossed the Atlantic; and, although he had on these occasions been considerably affected by sea-sickness, had not suffered to any severe or dangerous extent. Soon after sailing he became very sick, and continued so, without intermission, until the vessel in which he sailed, having been injured by the severity of the weather, put back into a port in Ireland to repair. The sickness left him, as it usually does, on landing; and during his stay on shore, which lasted about ten days, he continued perfectly well, so far as any thing was obvious to the notice of those around him.

On sailing, his sickness immediately returned. The passage was very rough, and continued for forty-four days, at the end of which he arrived at Charleston. During this period, till the last four days, the sea-sickness was unabated, and he vomited incessantly. As it appeared to others, he retained no food whatever, and was of course reduced to the last extremity. He remained sensible, was aware of his situation, and was in daily expectation of his death, as were those around him. He was not able to rise from his birth, but dictated to another person a letter addressed to his partner, relating to some matters of business, and containing some directions with respect to some articles of property. This letter, which I saw, was signed with his own hand, and indicated a mind perfectly clear in its recollection, and in its operations

Four days before his arrival, that is, after being forty days in this state, he ceased to vomit, his nausea left him, he became hungry, and was able to take and retain food, but he lost almost entirely the powers of his mind, and his recollection of what had passed. In this state he arrived at Charleston; and after remaining there, at the house of a friend, a few weeks, gradually improving in general health and strength, he was brought to this city by one of his brothers, who had gone on for this purpose. The account which I have thus briefly given of the origin of his disorder, was gathered from the brother in whose house I visited him, and who had learned the particulars from several individuals who were directly or indirectly acquainted with them. It is highly probable, therefore, that in many respects the above narration may be extremely inaccurate, being made up entirely at second or third hand. It serves, however, to establish the facts of a tolerable freedom from disorder at the time of his sailing, of his excessive sea-sickness, and of the sudden alienation of mind on the return of appetite and power of digestion.

His bodily strength, as we were told, had improved; and what was somewhat remarkable, he had improved during his journey from Charleston, part of which was performed by water without the production of sea-sickness. He was able to sit up in an easy chair a considerable part of every day, though not equally well every day. He appeared to possess a sufficient degree of strength in his arms; but his lower limbs were feeble, and he could hardly walk even with much assistance. His appetite was good, his tongue clean, and his bowels generally in a natural state, both as to the kind and quantity of the evacuations. His pulse was small and feeble, varying in frequency from 96 to 108. His countenance was generally lively and cheerful; but sometimes anxious and clouded. His senses were sufficiently acute as to sensibility; indeed, in the skin generally, and particularly in that of the legs, there seemed to be rather a preternatural degree of this property. He could not bear friction to be applied to the skin without great uneasiness; and when applied to the legs it produced sensations which he called a faintness, but which seemed to proceed from nervous irritation, and which he could not, and would not endure for a moment.

The sensibility of the eye seemed to be perfectly good, but there was an irregularity and unsteadiness in the motions of the ball which rendered him incapable of seeing objects clearly. The motions of the ball were in some measure like those which occur in common dizziness, but were less decidedly from side to side than in that case. I can only convey my idea of the nature of them by saying that the eye appeared as if alternately under the influence of its voluntary and involuntary muscles; as if the patient was constantly making an effort to direct the eye with muscles over which his controul was imperfect from feebleness, so that the contractions were intermittent and tremulous, whilst in the intermission of the contraction of the voluntary muscles, the eye passed under that of the involuntary, and was thus kept in a state of oscillation between the two. I was confirmed in the opinion that this might be a correct explanation, by the fact, that by a strong effort, particularly when he felt better than usual, he could, for a short time, fix his eyes upon any object so as to see it very well, but would be soon obliged to intermit the exertion, and the irregular motions would immediately return. The consequence of this motion of the eye was of course an apparent motion of external objects. Thus, if he looked at any object across the street, it appeared to him to be moving up and down to the extent of several feet; and in all objects there was an apparent motion proportioned in extent to their distance. This prevented him from discerning countenances accurately, and from reading. The attempt to read produced a sensation in the forehead too unpleasant to be endured. The kind of motion thus produced in external objects may be somewhat illustrated by the manner in which he described his sensations when able to walk out some time afterwards. On some days, when not so well as usual, the apparent motion of objects would return, he found it difficult to use his feet steadily, and frequently said, "there is a high sea running," not because he believed himself at sea, but because the apparent motions of objects about him were like that which he had experienced when on board a vessel. These sensations were sometimes such as to produce the qualmish feeling of sea-sickness.

The most remarkable and interesting part of his case, however, relates to the state of his mind. There appeared to be a total loss of memory of recent events. In this respect he resembled a person in extreme old age. He could recollect with distinctness what had occurred many years before, but retained no trace whatever of what had happened for many preceding months. The length of time which was entirely a blank, could not well be determined, because none of the persons around him had been particularly acquainted with his affairs for the few preceding years. It was still very evident, that besides having lost entirely the recollection of many of the last months, the events of a considerably long period, probably of one or two years, existed in his mind in a confused and disturbed manner. He at times, when questioned, admitted he had an indistint impression of having suffered from sea-sickness, but not a vestige remained in his mind of any other circumstance which had occurred during his absence in Europe, or during his passage home. His mind evidently went back, when questioned on this point, to some voyage preceding that during which he had actually suffered.

But though thus lost with regard to every thing recent, he would converse with entire correctness and recollection on all subjects connected with the events and pursuits of the earlier periods of his life. He gave accounts of the population, manners, habits, &c. of New Orleans, where he had formerly transacted business, of incidents occurring to him during his residence there, and of persons with whom he had been in company, such as any intelligent man would have given who was in full possession of all his faculties. No one would have suspected from his ordinary conversation on topics of this kind, that there was any thing peculiar in the state of his mind. It was when recent events were inquired about that the affection became manifest.

The conversation addressed to him from day to day, and common events as they passed, seemed to make no more impression on his mind, than if they had been written on water. He would forget the name of the person with whom he was speaking, unless it were some one with whom he had been formerly acquainted. If asked a question about even the most common personal occurrence, as whether he had slept well, whether he had an appetite, what he had eaten, &c. he would refer to his sister for an answer, having himself no recollection with regard to the fact. He had an absolute conception only of what was immediately present, and had no idea of the lapse of time, of the season of the year, or of the place in which he was. He required to be continually reminded that it was spring, that he was in Boston, and in his brother's house.

The place of his birth was in the neighbourhood of Boston, and his relations all resided here, but he had been absent thirteen years. When made sensible that he was in Boston, of which, as I have already said, he required to be constantly reminded, his mind seemed to go back, and take things up precisely as they were when he left it. All that he said about his relations and friends implied this impression. The brother, for instance, in whose house he was, now about twenty-six years of age, he supposed to be another brother, who had been of that age when he last saw him; his sister's daughters, who had grown up during his absence, he considered as his younger sisters. Still he was always ready to be set right with regard to these matters of fact; acknowledged the imperfection of his faculties, but immediately fell into the same mistakes. Indeed he was constantly conscious of the state of mind into which he had fallen, and frequently alluded to it in a very touching manner and with tears.

The nature of the failure in his memory was strikingly illustrated in some of my visits to him. Every morning a fresh introduction became necessary; he had no recollection of my name or my profession, or of the object of my visit. Even when reminded that he had seen me and had talked with me the day before, he could not recal the circumstance. The mention of my name, however, immediately brought to his mind the knowledge of other members of my family, whom he had formerly known, concerning whom he immediately inquired, and in a manner which showed that his recollection of them and their situation, &c. fifteen or twenty years ago, was entirely accurate. This train of recollection was often suggested by the mention of my name. He consequently went over the same inquiries, and gave the same accounts several times, never recollecting that he had done it before, and always evinced the same accuracy of memory with regard to the subjects to which he referred.

Very little was attempted in the way of medical treatment, and no advantage appeared to result from what was attempted. My attendance upon him was continued for but a short time, but I have occasionally seen him since, and once within a few days. Some improvement has taken place. He has recovered the use of his eyes so as to read a little; and he is amused by the occupation, although he retains no recollection of what he reads. His bodily strength has not much improved, and he cannot walk steadily alone. He still retains the peculiar sensibility of his skin. His memory is improved a little. He now remembers a few things of which he is constantly reminded, such as that he is in Boston and in his brother's house, and a few particulars of the same kind. But he had no recollection of my name though he thought that he had of my countenance. He did not even retain my name during the half hour that I spent with him, though he did recollect that I was a physician.

At this visit his conversation seemed to me more like that of a person affected with a permanent alienation of mind. He occupied himself during the whole of the time in a detail of strange and incredible adventures, which he encountered in his last voyage to Europe and residence there. The story he told was not only extravagant and incredible in itself, but was contradicted by known facts concerning him. Yet he told the whole with an air of entire good faith.

With regard to the nature of this affection, I have little to remark. Its history would have certainly led one at first to suppose that some disease of the brain had existed at the time of sailing, which had aggravated, and at the same time had been aggravated by the sea-sickness. The subsequent history does not certainly forbid this explanation, though it does by no means confirm it.

It is proper in conclusion to remark, that nothing is known either by his friends, or those who came with him from Liverpool, of what had occurred to him during his residence in Europe, and that there may have been causes operating to predispose him to an affection of this kind, of which we shall probably remain ignorant.

Boston, *Jan.* 6, 1830.

REVIEWS.

Art. XVII. *Lehrbuch der Gynäkologie, oder systematische Darstellung der Lehren von Erkenntniss und Behandlung Eigenthümlicher Gesunder und Krankhafter Zustände, Sowohl der nicht Schwangern, Schwangern und Gebärenden Frauen, als der Wöchnerinnen und Neugebornen Kinder. Zur Grundlage Akademischer Vorlesungen, und zum Gebrauche für Praktische Aerzte, Wundärzte und Geburtshelfer, Ausgearbeitet.* Von Carl Gustav. Carus, Dr. der Philosophie, Medicin und Chirurgie, &c. &c. &c.

Compendium of Gynæcology, or a Systematic Treatise on Women and New-born Children, both in Health and Disease, &c. &c. &c. By C. G. Carus, Doctor of Philosophy, Medicine and Surgery, &c. &c. &c. Second Edition. Leipsic, 1828, Vols. II. pp. 456, and 608. Plates 2.

THE sources of information to which the great mass of American physicians have access, are limited principally to republications of English practical works, most of them far behind the present state of the science; and to a few native productions, too scanty, however, to cover more than a very small portion of the vast field of medicine. It is true, that of late, a few of the more important French treatises on certain departments of our art have been translated and published, but by far the greater number remain inaccessible, and of the whole fund of professional learning of Germany, a country in which the medical mind has been extremely active, and also with that of Italy, little is here known, except from occasional notices in the medical journals received for the most part at second hand, and exhibited through the medium of French, or more frequently, English prejudice. To lay open to the American physician these hitherto sealed treasures, has engaged our most strenuous exertions, and as there are among those associated in support of this journal, some who are acquainted with most of the principal languages of Europe, we shall be enabled to present not only a summary of the chief improvements, but also to exhibit the actual state of the various departments of medical science in those countries in which they has been most succesfully cultivated.

On the present occasion we propose to offer a view of the existing condition of Gynæcology* in Germany, and for this purpose have selected for analysis the treatise of Professor Carus, as the most recent and complete that has appeared in that country. This work is highly esteemed in Germany, (where it has gone through two editions within a short period,) and is remarkable for the exceedingly comprehensive view it presents of the science, and for the very concise style in which it is written. The author says that he has endeavoured to treat his subject in a concise analytical manner, by which he hopes that his work will be a useful elementary book for students, and one that may be advantageously consulted by practitioners; that he has availed himself of the labours of others, but has never followed authority in opposition to nature.

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* From γυνη, γυναιχιος, mulier, and λογος, verbum.

In his introduction our author presents us with a definition of gynæcology, his classification of the science, and some observations on the method of studying it. Professor Carus divides gynæcology into two heads: 1st, general, and 2d, special gynæcology. Under the first, he treats of the organization and healthy functions of women, (general physiology,) of the nature of their diseases, (general pathology,) and of the treatment of the sex in health and disease, (general hygiene and therapeutics.) Of special gynæcology he makes two subdivisions: in the first, woman is considered solely in reference to herself; in the second, in relation to her offspring. Under the first he treats successively of the development of the distinctive characters of the female sex, of the maturity of the function of generation, and of its decline; under the second, of pregnancy, delivery, and the period of confinement and nursing. This arrangement is an exceedingly natural one, and comprises every thing relating to the science.

Part I. *General Gynæcology.*

Sect. I. *Peculiarities of Structure and Vital and Organic Functions of Woman. (General Physiology.)*

Before entering upon the consideration of the female body in the different periods of life, our author presents a general view of the peculiarities of its organization and functions, and also of the structure and functions of certain organs which perform an important part in the female œconomy.

I. *Peculiarities in the General Structure of the Female.*—In comparing the two sexes, striking differences are observed in their organization; these differences are pointed out by our author with considerable minuteness, but we shall notice those only of most interest. In the female there is a preponderance of the assimilative and reproductive organs, and a tendency to the type of infancy. Her stature is less than that of man, which our author ascribes to her development being sooner completed, owing to the greater activity of her assimilative and reproductive organs. From her arriving earlier at maturity, the respective proportions of her head, trunk, and extremities differ from those of the male, whose development being slower, is more perfect, and preserves less of the infantile character. Her bones generally are smaller, and are less marked by the muscles; her hands and arms more slender and delicate. The lower extremities are comparatively short, as in children, and this is the principal cause of her stature being less. The trunk represents a cone, whose base in man is upward, whilst the reverse is the case in women, the abdomen being larger, the pelvis more expanded, and the muscles which move the thighs greater. The cavity of her abdomen is more capacious, except at the upper part, where it is somewhat narrower; her intestinal tube is comparatively longer, and her liver smaller than in men. In women the ribs are thinner and more curved; the cartilages longer, the clavicles straighter, the cavity of the thorax smaller, as are also the heart and lungs. Her vocal organs are smaller, her trachea narrower, and having five or six more cartilaginous rings than in men; her larynx is smaller, higher, more elastic, and more convex on its anterior surface. The large size of the abdominal cavity, containing the organs of assimilation, and the small size of the lungs and liver show the predominance of the functions of assimilation over those of excretion. In fishes, which are remarkable for the activity of their assimilative functions, their abdomen comprises almost their whole body. In the fœtus also, in whom the function of assimilation is very active, the abdomen is comparatively very large. The tendency to the infantile character is shown in the voice, in the bony structure of the head, more slender than in men—in the more delicate features, and less prominent cheek bone, and in the proportionally greater size of the cranium to the face, so striking in the child, and still perceptible in the woman. Her brain is larger and heavier, and its proportion to the spinal marrow greater than in man, showing the less power she possesses of active exertion. Her nerves are smaller, except the olfactory pair, the large size of which reminds us again of its great development in children. The arteries, those of the organs of generation excepted, are like the heart, smaller; the veins participating in the most important functions of the female have a capacity for dilatation seldom met with in the other sex; and the absorbents also have a greater development, corresponding to the greater activity of the function of nutrition in the female. The cutaneous surface is softer, more undulated, showing less the form of the bones and muscles, the latter being more enveloped in adipose and cellular tissues, as a consequence of the great activity of nutrition, but again approaching the infantile type. The hair is finer, softer, longer, growing faster, but as in children, sparser, and confined to a smaller surface.

II. *Peculiarities in the Structure of the Female Organs of Generation and Pelvis.*—The most interesting peculiarities noticed by our author are the uniformity and simplicity of the ovaria in the human female, which are remarkable, compared to those of birds, amphibia, &c. in which they are composed of germs that separate after, or even before fæcundation. In the human ovaria, the vesicles, (ovulæ Graafianæ,) are so deeply situated that their forming the embryo has been denied by some physiologists; our author says incorrectly, and his opinion is confirmed by a preparation in the Museum of the University of Pennsylvania. In this, the vesicles of De Graaf are large and beautifully developed, and situated immediately beneath the peritoneal covering of the ovarium, which they even slightly distend. They are of the size of a duck-shot, perfectly transparent, and boldly pronounced. This preparation was obtained from a young lady in her seventeenth year, who died of an inflammation of the uterus. Had the inflammation any agency in the development of these ova?

The existence of muscular fibres in the uterus is affirmed by our author, in opposition to the belief of several anatomists, and his opinion is sustained by facts which appear to be conclusive.

The nerves of the uterus are, according to our author few, and belong mostly to the arteries; a fact considered worthy of notice, in connexion with the functions of this organ; in the whole animal kingdom the activity of reproduction and the development of the nervous system being observed to be in an inverse proportion; thus animals possessed of the most imperfect nervous system, manifest the greatest generative power, as polypi, crabs, snails, salamandra, &c. In the human body also, those organs or textures which have the fewest or no nerves, have the greatest generative powers, as the hair, nails, &c. Our author in a note refers to the beautiful tabulæ nervorum uteri, by Dr. Tiedemann, published at Heidelburg in 1822, in which the latter shows that there are six nervous plexuses from which the uterus derives its nerves, all belonging to the great sympathetic. The nerves of the uterus in girls and old women are extremely small, and they increase with the enlargement of the uterus during pregnancy.

The breasts, from their sympathy with the uterus, are organs of great importance in practical gynæcology. Our author considers with the ancient physiologists, the placenta, as the uterine mamma, and that the fluids destined for the nourishment of the child before birth are determined to it, as they are after birth sent to the mammæ. An analogy between the structure of the breasts and uterus are pointed out, as also a certain concordance which exists between the mammæ and placenta. Thus, in animals in which the chorion performs the functions of a placenta, the mammæ are very flat, as in the horse; when there are many placenta to the ovum, the number of nipples is increased, as in the cow, which has four nipples for one calf; whilst in other animals the number of the offspring at a birth, corresponds with the number of nipples.

In the description of the pelvis, its diameters, and the various means of measuring them, which follows, we do not find any thing that is not too well known to require notice.

I. *Semiology of the Female Organs of Generation.*—Under this head our author treats first, of the signs derived from the natural appearance of the external organs, of the vagina, and of the breasts; second, of the signs of virginity; third, of the signs of sexual intercourse having taken place; and fourth, of the signs of a previous confinement.

II. *Signs of a Regular Structure of the Pelvis.*—We do not find any thing in the brief observations on these subjects that would be interesting or new to American practitioners.

III. *Physical and Moral Peculiarities of Women.*—Under the physical peculiarities, our author makes some observations on the functions of assimilation, circulation, respiration, and generation. The functions of assimilation and circulation are more active in women than in men, whilst the reverse is the case with respect to respiration. From this last circumstance, our author observes that the male fœtus is more liable to be asphyxiated during parturition than the female, and more difficult to be recalled to life. We are not perfectly satisfied, however, of the correctness of this opinion, since, if it be ascertained that more male children are born in a state of asphyxia than female, it can readily be accounted for by the larger proportions of the head, and the greater density of its bones.

The external senses are more acute than in men, and more liable to become deranged; thus, difficulty of hearing and deafness are most common in females, &c.

The moral peculiarities of women are not less striking than their physical organization. Her character and turn of mind differ essentially from that of the other sex. In women, individuality, or independence of others, is less predominant than in men; she has therefore less energy or decision of mind. The fields of science, and those studies which require acute speculations or profound investigations and judgment, are not her province; but her mind is more delicate, more prompt and acute in the perception of the nearer and more isolated objects of human life; she possesses a certain disposition to artfulness, and a greater facility of abandoning one train of ideas for another; more softness and sensibility; but these qualities are incompatible with that power of mind which creates the sublime works of science and the arts. The predominant attraction which little, neat, and lovely objects possess for her, prevents the desire for the attainment of objects of a more exalted character; the impression of the latter upon the female being too strong to afford her pure and natural pleasure. The character of a woman's mind is chiefly determined by the part she bears in relation to generation. Her destiny to be united to a husband, and to become a mother, is perceived in the plays of her infancy, and afterwards becomes manifest in the commencing struggle in her bosom, between her modesty and her inclination for the other sex, as is seen in her lovely blushes, often united with a noble feminine pride and reserve, until she meets the man of her heart, when all these feelings are succeeded by a full and unlimited abandonment of herself to the object of her affection. Soon, however, conjugal love has to surrender itself to the stronger feeling of maternal affection, of the power of which we have many and the most extraordinary examples.

To these great features of the female mind, are to be added certain propensities and passions; and here our author notices the desire in woman to unite herself with the stronger sex, arising from the consciousness of her own weakness and gentleness; her increasing curiosity, arising from her more active and fanciful imagination, and less energy of mind; her great desire to please, giving birth to all the follies of dress, &c.; and her devotion and carefulness of her husband and children, constituting the virtues of domestic life. To these virtues are to be opposed her propensity to violent bursts of hatred and vengeance, when obstacles are opposed to the gratification of her ardent affections, or when her love is not returned, or she is betrayed.

Dr. Carus divides the life of women into three periods. In the *first period*, the contour is more delicate; the length of the abdomen, the gracefulness and vivacity of her motions, her greater powers of imitation, her curiosity, especially for sexual secrets, and her rapid development, distinguish the girl from the boy.

In the *second period*, there is a considerable and periodical determination of blood to the organs of generation. To this period belongs conception, parturition, confinement, and nursing.

In the *third period*, the uterus becomes harder and sometimes cartilaginous; the external sexual organs lose their form, the labia are open, the nymphæ and clitoris as in the fœtus become more apparent, and the mammæ hang down.

Sect. II. *Peculiarities of the Diseases of Women. (General Pathology.)*—Under this head our author notices the fact of women being subject to the general diseases which affect the other sex, as fevers. inflammations, &c. also to affections of her organs of generation, causing a number of general and local affections.

Sect. III. *On the Treatment of Women in Health and Disease. (General Hygiene and Therapeutics.)*—In this section, which occupies nearly thirty pages, our author describes, 1st, the qualities which an accoucheur should possess; 2d, the methods of determining the different conditions of the female body, as by sight, touch, and by instruments; and 3d, the general dietetic and therapeutic rules to be observed in the treatment of the female sex. We find in this section nothing of sufficient novelty to require comment, and shall therefore proceed to the consideration of the next division of the subject, merely calling attention to one hygienic rule, to which too much attention cannot be paid. In regard to the cultivation of the faculties of females, our author observes, a principal object should be to cultivate and strengthen their *understanding* and *volition*, and to avoid tale reading, romances, and false mysticisms, which produces a morbid sensibility, very often the cause of corporeal diseases.

II. *Particular Gynæcology.*

Part I. *Of Woman considered solely in relation to Herself.*

Sect. I. *Physiology and Hygiene.*

I. *Normal Development, Maturity, and Decline of the Sexual Character.*

First Appearance of Menstruation.—Menstruation our author defines, a crisis produced by a sanguineous evacuation, by which the congestion of the organs of generation are relieved; and he describes the symptoms that usually precede its appearance, but which are too well known to require to be repeated.

II. *Hygienic Rules during the three periods of Life.*

Purity of morals is, says our author, the great palladium of female preservation; females should therefore avoid every thing capable of inflaming their imagination, and of determining a congestion of the generative organs, as also spiced food, warm feather beds, remaining long in bed, &c. Sexual intercourse, before the menses are established, should also be avoided, as destructive to health.

Sect. II. *Pathology and Therapeutics.*

First Division. Of the Diseases of the first period of Female Life.

I. *Congenital Malformations of the Female Organs of Generation.*

Under this head our author points out the different malformations, 1st, of the external organs of generation, and 2d, those of the internal organs. There appears to be scarcely a limit to these malformations, and as they present little of practical value, we shall not follow our author in his details.

II. *Morbid and Premature Puberty.*

This is produced by a too rapid development of the organs of generation, as is shown by the too early appearance of the menses, as also by the premature development of the mammæ and labia, the appearance of hair on the mons veneris, and an aptitude in the uterus for conception. A case is related in the *Archiv. Schweizerischer Aerzte*, of a woman who had menstruated at two years of age, and became pregnant when eight years old, having been violated; she lived to an advanced age. This premature development of one system of organs exercises a prejudical and often destructive influence upon the whole economy.

The period at which the menses appear, is subject to much variation as is well known. Busch has related cases in which they occurred regularly every two, four, six and a half, and eight years.

In children with tumid abdomens, obstructed and enlarged external glands, pale face, disposed to costiveness, with morbid appetite, or whose sexual organs are excited by the irritation of the bowels by worms, premature menstruation frequently occurs as a secondary disease. Scrofula, and the degeneration consequent upon inflammation of the abdominal viscera, by disturbing the circulation of the vena porta, will cause congestions of the hæmorrhoidal and uterine vessels, and thus produce the affection under consideration.

The predisposing causes noticed by our author are, the use of high-seasoned food, spirituous liquors, a sedentary life, sleeping in warm beds, irritation by masturbation, licentious company, the reading of love tales, and irritable and weakly constitutions. The concurrence of several of these causes sometimes excites the uterine vascular system to such an extent as to produce metritis.

The principal indication of *cure* in this affection, is to destroy the vicious determination to the organs of generation, and to effect this, our author recommends a proper selection of food, country air, and bathing. In scrofulous habits, with their various obstructions, he advises that the activity of the intestinal secretions be increased, by moderate use of neutral salts; rhubarb, with the infusion of tamarinds; soap, united with vegetable extracts in pills, or combined with antimonial preparations. By thus increasing moderately the secretion of the mucous membrane, the resolution of the obstructed glands will be promoted, and a more regular circulation of the fluids in the abdominal vessels obtained. To maintain action in the skin, our author advises volatile frictions on the abdomen, the use of soap and saline baths, pure air, moderate exercise, and light and appropriate food. When worms or metritis are present, which happens even with children, leeches and calomel should be employed. No attempt ought to be made to arrest the sanguine evacuations, by using cold applications, increased doses of tincture of cinnamon, &c. which would destroy the salutary crisis: tonics increase the tumefaction and obstruction of the lymphatic vessels. When this obstruction is removed, the tongue clean, the state of the mucous membrane of the stomach brought to its normal condition, and the evacuations have become natural, the use of a mild bitter extract, followed by that of the decoction of bark, chalybeate baths, and the moderate use of light wine will be of service. During the sanguine evacuation, our author deprecates the use of purgatives, baths, and frictions, and advises that the patient should be kept quiet, unless the copiousness of the discharge excite apprehensions, in which case he recommends fomentations of aromatic herbs to the external parts, as serpillus, absynthium or melissa, with vinegar, frictions with naptha on the hypogastric region, the internal use of diluted sulphuric acid, the juice of raspberries, and one-half to one drop of laudanum. The patient should also avoid reading improper books, keeping lewd company, indolence, masturbation, and taking all stimulating drinks and slops, as chocolate, tea, spirits, or strong wines. To lower the general and local sensibility, and to increase the powers of assimilation, the use of milk-warm baths, mixed with the decoction of chamomile or valerian, are recommended, and in summer, cold river or sea-bathing. During the intervals of the menses, the genitals should be washed with cold water, and emulsions and other cooling beverages taken. In short attacks of nervous irritation, small doses of Dover's powder, extract of hyosciamus, and liquid ammonia are useful. After the bowels have been attended to, the diet should consist of broths, sago, light drinks, &c. The pure bitters, such as extr. taraxaci, centaurii min., trifolii lib. gentianæ, the cinchona, and finally, the tinct. martis cydoniata, the tonico-nervina, &c. should be given, and succeeded by the iron in substance, mineral baths, country air, exercise, and lively moral impressions, derived from useful employment of time without fatigue.

Second Division. Diseases of the second period of Female Life, or of Maturity.

Sect. I. *General Diseases.*

I. *Irregularities of Menstruation.*

A. *Total Absence or Tardy Appearance of the Menses.*—The first may depend on idiosyncrasy without any exterior symptom; cases are recorded of females who never menstruated, or only when pregnant. Tardy appearance of the menses may depend on organic impediments, as the obstruction of the vagina or the os uteri. Oberteuffer relates an instance in which, by an incision through the hymen, he evacuated six pounds of fluid; with such accumulations periodical symptoms corresponding to the time of physical development usually take place, and produce swelling of the abdomen, irregular digestions, pains in the loins, &c. which may be mistaken for signs of pregnancy. Tardy menstruation is also produced by those causes which disturb the function of assimilation, also by fevers, which create a pathological revulsion, and thus destroy the physiological one on which the menstrual function depends. Chronic affections may have the same effect. In all these cases, tardy or suppressed menstruation will not by itself be felt as a disease, for the function of assimilation being imperfect, the system will not feel the want of the menstrual function, or the superabundance of blood; this will be likewise the case in scrofulous individuals labouring under tumefactions and obstructions of one or several abdominal viscera, ulcers, worms, cutaneous affections, &c. Irregular or suppressed menstruation sometimes produces the most singular disorders of the nervous system, such as epilepsy, chorea sancti viti, somnambulism, convulsions, &c. congestions of different organs and systems, hæmorrhage, leucorrhœa, or other mucous evacuations, tumefaction of various organs, &c. Dyspepsia, followed by obstructions and diarrhœa, the imperfect or vicious sanguification, chlorosis, as a consequence of the debility of the lymphatic system, and watery accumulations, may endanger life. A similar state of things may be purely the effect of a bad regimen or habit, without anterior disorders, such as an indolent or too sedentary life, producing a stagnation in the circulation of the abdominal vessels, impure and damp atmosphere, grief and misery, improper food, masturbation, or the abuse of premature sexual intercourse, impairing the nervous system before the maturity of the functions of generation. Another cause of tardy menstruation pointed out by our author, is the deviation of the general form from the normal type of the sex, with a tendency to masculine appearance, yet with the regular conformation of the sexual parts. In masculine-looking women, who are unusually large, have an expanded chest, long face, masculine features, hair on the upper lip, a bass or deep-toned voice, flat bosom, prominent bones, and a narrow pelvis, the menses will sometimes not appear before the eighteenth or twentieth year of age, and even then in deficient quantity. Finally, the two great activity of the arterial system causing over-distention of the veins, which is observed especially in the hearty countrywomen.

When the absence of the menstrual flow is owing to the closure of the vagina by a membrane, it is sufficient to make an incision in this membrane, and, after the evacuation of the accumulated fluid, our author advises us to cleanse the parts by injections per vaginam of decoction of serpyllus, (mother of thyme,) of absinth., flowers of chamomile, sometimes mixed with wine, or tincture of myrrh. Attempts to recall the menses by using stimuli, acting directly on the organs of generation, as practised by empirics, who administer aloes, savin, &c. our author considers as eminently pernicious; those remedies impair the organs of digestion, and if a sanguine evacuation be provoked, the general debility must increase by the tumefaction of the glandular organs, as well as the chronic inflammations of the internal organs of generation, which may be followed by nymphomania, ovarian dropsy, &c. No chalybeate preparations, or bark, ought to be given before all the obstructions and other complications are removed. The physician should attend to the whole system, and not treat his patient solely in reference to the deranged menstrual function.

To restore the action of the bowels, the extr. millefolii, centaurii minoris, embrocations of quassia, and bark, &c. are recommended, combined, according to circumstances, with spirituous liquids, as the tincture of orange peel, elix. visc. Whytii, &c. The bowels should be kept regular, and the abdomen covered with flannel, and dry frictions employed. To restore the function of assimilation, and tone to the system, the iron may be given at first in tincture, and afterwards in substance. In more phlegmatic constitutions, baths, with aromatic herbs mixed with brandy or wine, and the above-mentioned hygienic rules, should be resorted to.

When from general weakness of the system, there is local debility of the apparatus of generation, relaxation of its internal or external parts, with absence of desire for sexual intercourse, and even atony of the urinary apparatus, or of the rectum or large intestines, it will be proper to employ remedies acting more directly on the affected parts, as the tincture of cinnamon, or decoction of cascarilla, or aqua melissæ vinosa, &c. and occasionally a purgative of senna, jalap, or aloes, &c. If there be great torpidity, the decoct. sabinæ, ʒij. ad ℥iv. colat. with the syrup cort. aurant. the pil. balsamicæ Stahlii, and similar combinations with iron, for example, gum. ammoniacum, ʒj.; aloe lucida, and ferr. oxydulat. nigr. āā. ʒss.; made into pills of three grains, of which three or four are to be taken morning and evening. Our author says that he has given with great advantage the tinct. kali hydrojodinici, eight, ten, or twelve drops in a table-spoonful of aq. melissæ, once or twice a day, as well as the tinct. guaiaci ammoniata. He uses also volatile and irritating frictions on the hypogastric region, and recommends wearing an aromatic plaster on that part. Electricity or galvanism, directing the fluid towards the pelvis, pediluvia with salt, ashes, or mustard, he also considers useful. Leeches on the labia pudendi, and on the internal surface of the thighs, the use of flannel for the lower extremities, irritating frictions on the soles of the feet, aromatic half baths, exercise, riding, &c. should also be employed. The author recommends in particular the use of a table-spoonful of the spirit sal. ammoniaci causticus, mixed with the warm bath, in which the patient should stay twenty minutes. Some drops of the same substance mixed with milk, he considers a useful injection when there is a high degree of torpor.

In females of a masculine appearance, it would be improper to attempt to provoke the menses by emmenagogues; the physician should prescribe according to the indications. Weaker individuals of this description are subject to spasmodic affections, pains in the limbs, insomnia, &c. which are to be treated with tepid baths, an appropriate and simple diet, pure air, bitters, (without spirits,) emulsions, and small doses of narcotics. The violent attacks in these constitutions generally depend upon the digestive and vascular systems, and the treatment should consist in the use of the mild antiphlogistics, and attention to the bowels; after which the nervous system may be strengthened by antispasmodics, as the tinct. castorei, valerianæ, moschi, liq. corn. cerv., opium, &c.

B. *Imperfect, or Painful Menstruation*, often, our author observes, succeeds tardy menses, and the causes of both are nearly the same. Irregular menstruation often occurs after pregnancy, or after recovery from a serious disease, &c. The predisposing and occasional causes are, deviations from the normal structure of the sexual parts, thinness or smallness of the uterus,* with a corresponding diminution of its secretion—diminution of the functions of nutrition from some chronic affections, inadequate nourishment in quantity and quality. The menstrual fluid in these cases is watery, and in a small quantity. Under such circumstances, if the female were to menstruate like a healthy person, the general system, our author thinks, would suffer.

Painful menstruation may depend, he says, on spasms or inflammation; the local accumulation of blood in the venous plexus surrounding the uterus, producing pains similar to those of hæmorrhoids, and hæmorrhoidal inflammation.† These pains occur during the development of puberty. Our author knew this complaint hereditary in a family; they were all incurable. The irregularity of this function seems to be one of the symptoms of scrofula, or of some spasmodic affection, or of a beginning or confirmed organic degeneration of the abdominal viscera, or of the organs of generation. The case of a young and strong girl, is alluded to who, after a fall from a second story, when twelve years old, by which her back was much injured, never afterwards regularly menstruated. The menses may sometimes be replaced by a vicarious evacuation from other organs, as from the hæmorrhoidal vessels, or the stomach, gums, bladder, ulcers, wounds, or organs of respiration, and even from the skin by perspiration. Hufeland succeeded in curing a case where the menses came through the nipples. Various evacuations may take place instead of the catamenial flow, such as salivation, diarrhœa, a copious secretion of urine, or perspiration, &c. This, however, is not of frequent occurrence, and normal menstruation taking place during such periodical activity of other organs is still rarer.

The treatment consists principally in attention to hygiene. General and local plethora should be diminished by proper measures. When the chest is affected, the patient should avoid sleeping in warm feather beds, and use for drinks whey or lemonade; a gentle laxative should be occasionally given—local or general bleeding occasionally resorted to; and just before the expected period of menstruation, pediluvia, and leeches to the perineum, should be used. If there be any concomitant morbid affections, as ulcers, wounds, cutaneous diseases, &c. these should be first cured, and any ill effects that might result from their cure avoided by establishing an issue, especially in the case of scrofulous ulcers. At the same time it may be proper to excite the sexual organs by dry frictions to the legs, &c. In plethoric persons leeches should be applied to the perineum; in those of a phlegmatic constitution, frictions with spirituous fluids to the hypogastric region should be used, and the patient may wear a girdle of aromatic herbs, with the occasional use of laxatives and the warm bath. In cases of local debility, we should distinguish carefully between those which are connected with a morbidly increased constitutional irritability, and those which occur in a contrary state of the system. In the first class all stimulation of the sexual system must be avoided, as also the use of tea, chocolate, and spiced food, and the reading of romances and works which excite the imagination. In cases of great debility, washing with a decoction of serpyllum, or absinth—the wearing a girdle filled with powder of cort. guaiac. often moistened with wine—and mineral baths, are recommended. The engorgement of the veins is to be removed by an antiphlogistic diet, bleeding, &c. When painful menstruation depends on a malformation of the uterus, or its abnormal position, the stagnation of blood in the vascular plexus of the broad ligaments, a morbid sensibility of the nervous system, or an inflammatory state, the treatment should be directed to the removal of these, or if they be incurable, the most distressing symptoms may often be removed by attending to their nature. Thus when there is too full health, a too active sanguinification, and the habits of the patient are sedentary, bleeding, cooling laxatives, and an antiphlogistic diet are indicated. On the contrary, when the nervous rather than the vascular system is affected, it will be necessary to employ remedies which shall diminish the sensibility of the sexual organs, either directly, or indirectly by revulsion. The first consist of hip baths, vapour baths, injection per vaginam of decoction of chamomile, or hyosciamus and valerian, and enemata of the same combined with oily or mucilaginous articles—frictions with opium ointment to the loins—warm applications, and emollient cataplasms to the hypogastric region—the warm bath—the internal use of opium in small doses—emulsions of the different preparations of valerian, the liq. cornu cervi, musc., tr. castorei, &c. The second consists of such applications as increase the excitement in other organs, and thus relieve that of the sexual parts, as irritating pediluvia, and sometimes sinapisms to the calves of the legs. Those cases in which the menstrual evacuation is made by the nipples, nostrils, &c. are to be treated by purgatives—frictions with camphorated oil—the application of cicuta, or mercurial plaster to the affected parts—electricity—and saline mineral waters.

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* The author has in his collection of morbid anatomy the uterus of a masculine woman, which is but of half the usual thickness.

† There is a serious objection to this idea—the pain in dysmenorrhœa being periodical, and in venous congestions constant.

C. *Immoderate Menstruation.*—The predisposing causes of this disease, are, according to our author, sanguineous temperament, a short stature, strong development of the sexual system, full breasts, and sometimes a weakly or irritable constitution, atony of the sexual organs, and an imperfect contractility of the uterine vessels, deformities of the genitals by abscesses, indurations or carcinoma, diseases of other organs by which the circulation is disturbed, scrofula, &c. The occasional causes are the use of rich food, strong beer, a sedentary life, exterior excitations of the sexual parts, improper moral stimulus, tight corsets, &c. In the treatment of this complaint strong astringents and cold applications should not be used unless the discharge becomes a real hæmorrhage. Our author advises quiet of body and mind, the avoidance of all stimuli, tight clothing, and sexual intercourse; the use of laxatives, bleeding, diaphoretic, and, at the approaching period of the menses, nitre, cremor tartar, lemonade, &c. —when there is general debility, bitter extracts, quassia, bark, and iron—at the appearance of the sanguine evacuation, the diluted sulphuric acid, Dover's powder, cold baths, cold applications to the sexual parts, and a light and nourishing diet. When immoderate menstruation is the consequence of atony of the uterine vessels, the above-mentioned tonics should be employed with the addition of some volatile and diffusible stimulus, especially in phlegmatic and elderly persons whose digestion is languid, and who are inclined to dropsy and obstructions. During the intervals of the menstrual evacuation, and according to the state of the stomach and the intestines, the solution of extracts in aromatic waters—or vinous infusions of bark, with iron—and spirituous frictions on the abdomen and sacrum, are useful. At the beginning of the menses, the acid. Halleri—phosphoric acid, fifteen to twenty drops in some mucilaginous vehicle—tr. cinnamoni, &c. are recommended. When too profuse menstruation is the consequence, or the symptom of other diseases of the uterus, or of any neighbouring organ, the treatment is to be directed to the first cause. Our author observes, that he has frequently seen such immoderate sanguine secretions yielding to the moderate use of mild purgatives, after having baffled all the other resources of art.

D. *Suppressed Menstruation.*—Great irritability, sanguineous determination towards other organs, disorders of the functions of the stomach, and of the lymphatic system, spasms of the vessels of the uterus, violent mental affections, electricity, &c. are enumerated by our author among the causes of this disease. The last we do not recollect having before seen noticed as a cause of the complaint; our author, however, mentions the case of a female, twenty years old, who had been holding a child on her lap during the application of electricity, exposing herself likewise to its influence. She remained in good health during two months, when her menses disappeared forever, the gout taking their place. Stimulating food, and especially exposure of the lower extremities, or the sexual parts, to wet and cold, and finally, inflammation, schirrus, steatoma, polypus, &c. are all causes of suppression of the menses.

Treatment.—All violent emmenagogues to recall the suppressed catamenia should be avoided; to ascertain the cause is of the greatest importance; if the retention be followed by fever, or violent congestions, the patient should be bled, purged, and put upon low diet. After exposure to cold or wet, if there be a rheumatic character in the suppression, diaphoretics, frictions, warm and dry applications are to be employed. Nervous accidents, with erythism of the vascular system, indicate the use of milk-warm baths, injections of chamomile and valerian—sedative and narcotic fomentations and cataplasms; internally emulsions, valerian, Dover's powders, &c. and as a stimulus to the vascular system, mineral acids. After the violence of these symptoms are removed, due attention is to be paid to the returning period of menstruation, keeping the lower extremities warm, using of moderate exercise, pediluvia, and the infusion of melissæ. If the uterus remains tumefied, painful, or if there be any tendency to a congestion of other organs, it will be necessary to ascertain if the os uteri be closed by a spasmodic contraction; and if so, injections of valerian, hyosciamus, demi-baths of flowers of chamomile, cataplasms to the abdomen, frictions with volatile liniment and laudanum, and the internal administration of the tinctures of valerian, castor, or opium, are recommended. Our author advises leeches to the perineum in cases of sanguineous congestion, and he considers emmenagogues, as aloes, gum ammoniac, and decoction of savin, admissible when there is great torpidity.

2. *Diseases arising from the Irregular Development of Puberty.*

§ 1. *Derangement of the Function of Assimilation.*

Chlorosis.—No organ of the body is more rapidly developed than the uterus, and when the equilibrium between the development of this, and the other organs is affected, various morbid changes may be produced. The preponderance of nutrition over secretion very seldom happens; a case of this, however, occurred in Strasburgh, where a child was seen weighing two hundred and eight pounds, with a bodily circumference of forty-eight inches, at the age of five years. Two girls have been lately exhibited in New York, who furnish an example of this preponderance of nutrition over secretion. These children were born in Duchess Co. N. Y.; the younger was three years of age, and weighed one hundred and twenty-four pounds; was three feet eleven inches high, measured around the waist four feet two inches, and around the arm fifteen inches: the elder weighed one hundred and twenty-four pounds, was three feet four inches high, measured around the waist three feet ten inches, and around the arm fifteen inches. Delicate females near puberty, with lassitude, melancholy, paleness, want of appetite, &c. without any other serious malady during this important epoch, in which fatal consumption frequently makes its appearance, are much inclined to chlorosis. Those labouring under this disease have a whitish, grayish, or greenish colour of the face, blue lips, furred tongue, a bluish circle round the eyes—no appetite, or a desire to eat such substances as chalk, earths, &c. also dyspepsia, nausea, acid stomach, irregularity of the alvine excretion; the pulse is alternatively slow, feverish, irregular; the skin dry or œdematous, with a general lassitude, head-ache, vertigo, drowsiness, disturbed sleep, melancholy, frequent sobbing and weeping, silence, and fixed ideas degenerating often into mania. The functions of the organs of generation are also impaired, the menses suppressed, or deranged in quantity and quality, the breasts and uterus are small, there is no venereal desire; sometimes these organs are affected with a morbidly exalted irritability.

The causes of this disease enumerated by our author, are an impure atmosphere, dampness, cold, darkness, indigestible food, debilitating slops, such as coffee, tea, &c. want of, or excessive exercise, uncleanliness, grief, precocious coitus, &c. Chlorosis frequently follows worms, obstructions, diarrhœa or lientery, scrofula, or excessive evacuations natural or artificial, organic diseases, degenerations of the uterus or ovaria, obstructions of the os uteri, and the sudden deprivation of sexual intercourse—it is therefore frequently observed in young widows.

The morbid appearances found on dissection, are stated by our author to be commonly a general flaccidity, particularly of the heart, dropsies, or a watery venous blood, swelling and induration of the lymphatic glands, degenerescences of the uterus, hypertrophy of the ovaria, &c. The author has in his possession the internal organs of generation of a girl seventeen years old, who had never menstruated, and who died with the symptoms of chlorosis; the uterus was but one inch long, and a few lines thick.

The general indication of treatment is to re-establish the function of sanguinification; and to accomplish this, hygienic means

Professor Carus considers of the greatest importance. Marriage he thinks adviseable only when the constitution is at least approaching to maturity, and it is the only way of putting a term to the desires of an exalted imagination, or to unnatural excesses. If an affection of the lymphatic system, or derangement of some of the abdominal organs be the causes of chlorosis, the original disease is first to be removed. The functions of the skin, and the lungs, are to be kept active; and especially those of nutrition. The author recommends that the treatment be commenced with the light extracts: extr. saponar., trifol. fibr., centaur. min. followed by those of gentian, cort. peruv., especially in the form of chininum sulphuricum. The intestinal tube thus prepared for the iron, the tinct. martis cydoniata, twenty to thirty drops in a table-spoonful of wine, or mixed with flaved. cort. aurant., cort. cinnamomi, &c. according to the state of irritability, may be given. Centomo and Brera recommend particularly the oxide of manganese in powder, ℈j. to ʒij. daily, Formey and Hoffmann the iodine, Pezzoni the tannin. The phosphoric æther has been highly spoken of in cases of great torpor and apathy; it may be given in the dose of twenty-five drops four times a day. Hamilton, after the administration of purgatives, applied a tourniquet on the thigh,* compressing moderately the arteries, and at the same time a vapour bath directed towards the sexual parts, and after giving a cardiacum the menses appeared. But when chlorosis depends on the above-mentioned causes, the author prefers foot baths, half baths, vapour baths to the genitals, woollen cloths on the lower extremities, frictions of the tincture of cantharides on the soles of the feet, leeches to the perineum, and mild laxatives.

When the functions of assimilation and sanguinification are impaired by the suspension of the action of the sexual system, the menstrual flow will in general cease; in such cases the increase of intestinal secretion, and local bleeding are indicated.

§ 2. *Disorders of the Animal Functions.*

The moral character of woman exercises so great an influence over her mental affections, that it is a cause of surprise that this important branch of female pathology should have been entirely overlooked in the modern treatises on the diseases of the sex. Our author commences this section with some metaphysical observations on the nature of human beings, which from fear of not being able to render intelligible, we omit, and proceed to the consideration of the remarkable derangements in the actions of the animal functions, which occur in females during the development of puberty. These are stated to be, *a*, exaltation of internal sensation *(selbstgefühl)* when awake, which, according to the peculiar disposition of the individual, will be directed to the various concerns of life, or to spiritual or religious subjects; as the mania for being an object of admiration, even at the expense of self-inflicted sufferings, by fantastic words or actions, loquacity, versifying, musical or religious hallucinations, &c. *b.* Exaltation of internal sensation when asleep, as talking during sleep, and somnambulism. When this internal sensation is lessened, it produces nightmare. *c.* The total abolition of internal sensation, as in fainting, apathy, and imbecility of mind.

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* The ancient writers have recommended ligatures on the lower extremities for the same purpose.

The morbid conditions of the external senses are, *a*, exalted sensation from the action of ordinary agents, whence arise pains from the action of agents which in a natural condition of the organs are but a natural stimulus; or a decision of the mind from the excessive influence of common stimuli, whence arises the mania for imitation. *b.* Increased and morbid acuteness of the senses, or misplaced sensation, as seeing or hearing by the hypochondria or ends of the fingers, &c. *c.* Perception of things, which in the natural condition of our organs are imperceptible, or to see or hear at great distances, perceiving future events, &c.

The derangements of the muscular actions are, *a*, paralysis with or without the loss of sensibility; *b*, spasm, tetanus, &c. or inability to move, as when a person remains in any position in which he is placed, (catalepsy;) *c*, violent and involuntary muscular motions, convulsions, epilepsy, chorea, and several other affections of organic life, such as a protracted and total abstinence from food; *b*, the suppression of the natural evacuations; *c*, the suppression of respiration.

Exaltation of internal sensation when awake, is an affection most common in young unmarried females, the development of whose mental faculties far exceeds their physical powers. Such persons are characterized by a delicate frame, fair skin, intelligent countenance; they are subject to febrile diseases and dyspepsia; their sleep is disturbed by dreams; they often fancy that they are objects of pity, on account of their imperfect physical development, or from being deprived of any hope of matrimonial happiness; this rouses their vanity, and they exert themselves to gain admiration by the most eccentric conduct, as by affecting somnambulism, suffering pain, privations, &c. Thus our author, among many other instances of this affection, relates the case of a Swiss girl, who asserted that she had a viper in her uterus, which she suckled through the vagina.

Most authors have declined the consideration of that derangement of the animal functions, which, according to our author, enables persons to receive certain impressions through organs by which, in a healthy state, such impressions are never perceived, as hearing by the hypochondria, &c. rejecting the whole as illusions, because it does not correspond with their ideas of the powers of nature. Our author attempts by a long train of metaphysical reasoning, to show that such a decision is hasty; we shall not, however, tire our readers with the reasons by which he supports his opinion. Such of the many extraordinary cases of the nature under consideration, as have been carefully investigated, have proved to be impositions, and others are so badly authenticated, that it seems fair to conclude them to be impositions also; we cannot, therefore, but think that it would be a waste of time to attempt to show how phenomena might occur, whilst satisfactory evidence of their existence is still wanting. It reminds us of the proposition to explain why a live fish weighs more than a dead one, said to have been presented to a society of philosophers. After much labour had been bestowed in the endeavour to ascertain the reason, one of them thought of weighing the fish, and found that they both weighed the same.

The treatment of these affections must of course depend upon the condition of the different functions. In cases of exaltation of internal sensation, either when asleep or awake, occurring in plethoric subjects, or those in whom there is a disposition to visceral obstructions, emetics and purgatives are recommended. In phlegmatic persons affected with imbecility, worms, &c. drastic purgatives, as jalap, calomel, and senna, are advised to be given occasionally, whilst when an inflammatory diathesis or congestions are present, the mild laxatives are advised. When the diseases under consideration supervene on the suppression of cutaneous diseases, or of any of the secretions, it is proper to establish a drain by an issue, seton, or perpetual blister, and these are said to be especially useful in cases of spasms, chorea, clonic cramps, &c. Diuretics are said also to be sometimes beneficial. Blood-letting, when judiciously employed, is considered very useful, as is also the detraction of small quantities of blood by venesection, leeches, or cups, frequently repeated, as practised by BERLINGHIERI.* Local pains, spasms, and paralysis should be treated by blisters, sinapisms, moxas, frictions with tincture of cantharides or aqua ammonia, &c. To act more directly on the nervous system, warm baths and emollient and narcotic enemata are recommended. Opium our author does not consider as always useful; he has seen one-fourth of a grain of it produce violent convulsions. Crocus, extract of hyosciamus, and extract of lactuca virosa are recommended. In convulsions, the belladonna is said to be useful; valerian, chamomile, and melissæ, are to be employed in cases of spasm; in derangements of the sensibility, castor and musk are to be used; and in derangements of the stomach, flowers of zinc or oxide of bismuth. In debilitated, irritable, and nervous patients—wine, with proper adjuvants are recommended. In the melancholia of young females, when there is no inflammatory diathesis, camphor is said to be useful. The tinctures of serpentaria, imperatoria, and naphtha—the aqua ammonia, and sal. ammon. fœniculat. are also recommended in some cases.

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* This physician, it is said, cured a case of violent hysteric convulsions by venesection, which he repeated *four hundred times*, taking half an ounce at each bleeding.

The influence of light, darkness, heat and cold may be employed by a sensible physician with advantage. Nasse relates a case of epilepsy, in which the paroxysm only came on when the patient was left in the dark. Magnetism, galvanism, and electricity are noticed as occasionally useful remedies. After our exposition of our author's views of the diseases under notice, the reader will not be surprised to learn that animal magnetism is one of his therapeutic agents, and he enters into a detailed explanation of the causes of the incredulity that exists respecting the curative powers of this remedy.

3. *Nymphomania.*

This is observed most frequently in females of a sanguineous, choleric temperament and strong frames. Our author divides this disease into three degrees. In the first, *salacitas*, every sentiment of shame is not yet destroyed, but the exterior appearance exhibits evidence of the disease of the woman; the eyes are swimming in tears, the lips red and tumid, and the wish for sexual intercourse is further shown by indecent dress, words, &c. In the second degree, *melancholia uterina*, there is a depressed mind, a fixed look, the whole system suffers; sleep and digestion are disturbed; but all the ideas are fixed on the gratification of their passion, shown by indecent offers, gestures, great agitation at the approach of men, &c. The third degree is a *complete mania;* the patient has now no power over the will; she tears off her clothes, throws herself on every man who approaches, cries, has involuntary evacuations, and when exhausted, sinks into melancholy or a state of insensibility. When the disease is thus violent, if it be not speedily removed, it soon terminates fatally, either by marasmus, dropsy, apoplexy, or suicide, and the latter is not an unfrequent termination. Chronic inflammation of the ovaries is considered by our author as the cause of this disease: he saw these organs of a larger size, red, and covered with pustules, in persons who died after a dissipated life of venereal excesses. The predisposing causes, he says, are a heated imagination, dwelling on lascivious ideas, reading of improper books, bad company, plethora, heating aliments and drinks, warm feather beds, the too constant use of foot-stoves, excessive sexual intercourse, chiefly when the womb is impregnated, worms, especially ascarides, which may even exist in the sexual parts, acrimonious fluor albus, stones in the bladder, or urinary apparatus, &c. The occasional causes of nymphomania are disappointed love, sudden deprivation of sexual intercourse, irritation of the genitals by ill-applied pessaries, the abuse of drastic purgatives, emmenagogues, irritating injections, syphilitic infection, warm vapour baths, &c. Nymphomania, our author says, may terminate, 1st, by uterine hæmorrhage; 2d, by copious hæmorrhoidal evacuations; 3d, by chronic fluor albus; 4th, by pregnancy; 5th, by prolapsus uteri sufficient to expose the uterus to exterior cold.

In the treatment of this disease, our author recommends an antiphlogistic diet, cooling laxatives, and that the patient be kept from company, and watched to prevent her resorting to masturbation. Washing the genitals with cold water, or the decoctions of bitter herbs, removing of pessaries, and putting a sponge in their place, are also advised; sexual intercourse is considered useful only when the disease is the effect of its sudden deprivation, or of a highly developed puberty. Ipecacuanha, in frequent and small doses, producing constant nausea; mercurial frictions to the groins carried to a slight salivation, and frictions of tartar emetic are said also to be useful.

4. *Sterility.*

This cannot be considered in itself as a disease in women, but as the consequence of a general or local morbid state. The predisposing causes enumerated by our author are, 1st, a phlegmatic or a masculine constitution, absence of, or irregular menstruation; weak or no venereal desires; 2d, malformation of the external or internal sexual organs; 3d, foreign bodies in the vagina, as ill-applied pessaries, large polypi in the uterus or vagina, &c. 4th, great atony of the genitals, or spasmodic affections of them, &c. 5th, obesity, or general and serious diseases, as fevers, dropsy, &c. 6th, excess of sexual intercourse.

The general treatment must depend upon the state of the constitution; our author recommends, when the disease is owing to narrowness of the exterior parts of generation, soap baths, vapour baths, the introduction of sponges imbibed with oily or mucilaginous substances, frictions to the perineum with oil or hog's lard, and coitus immediately after menstruation. The anormal positions of the uterus may sometimes be corrected by a certain position during sexual intercourse, and conception may take place. Rupture of the perineum may be remedied by the suture. Spasmodic affections of the vagina rendering coitus painful, and when it is produced by insufficient mucous secretion of that organ, which prevents conception, is to be cured by proper diet, bathing, especially sea bathing, vapour baths, unguent. olei hyosciami, the frequent introduction of a sponge with warm milk and tinct. opii; injections of the decoction of poppies, &c. Sterility dependent upon atony requires a tonic diet, travelling, mineral baths, resinous extracts, savin, tincture of cantharides; and externally, frictions of the volatile liniment with tincture of cantharides on the loins; irritation of the skin by dry frictions, or with iodine, electricity, &c. drastic purgatives, and proper regulations respecting matrimonial intercourse.

5. *Hysteria.*

This disease makes its appearance most usually between the age of twenty and forty-eight. The predisposing causes are, an irritable constitution, (as often found in the delicate brunette,) connected with a great activity of mind; unmarried, or unhappily married women without children, and young widows, are its most common subjects; but women when pregnant, or whilst nursing, are not entirely exempted. One of its chief characters is the periodicity of the paroxysm, which is of two kinds, the regular and the irregular; the latter is occasioned by external causes, strong passions, or impressions on the external senses, &c. &c. The symptoms noticed in the animal sphere are—1st. Those of disturbed sensibility; thus, a common incident, the falling of a book, opening a door, &c. will painfully affect the patient. The other senses are in the same morbid state; the olfactory organ is particularly exalted, the smell of a flower, camphor, musk, &c. sometimes causing fainting, vertigo, &c. whereas other substances of a most disagreeable taste, as assafœtida, &c. are easily taken. The head and abdomen are greatly affected, there is a sensation of a ball moving up and down in the throat, pains in the uterus, disturbed sleep, melancholy, and weeping. 2d. Symptoms of disturbed muscular action, as spasms of the muscles.

Symptoms in the vegetative sphere. 1. Symptoms of disturbed vascular action. The pulse is generally frequent and variable, with palpitations, &c.: 2. Symptoms of disturbed functions of digestion; first, want of, or perverted appetite; second, a saltish, bitter, or sour taste; third, a foul tongue; fourth, belching, and formation of wind in the alimentary tube; fifth, acidity of the stomach; sixth, dyspepsia; seventh, deranged bilious secretion; eighth, disorder of the alvine evacuations, diarrhœa, or costiveness: 3. Symptoms of deranged function of respiration; the irritable state of the bronchiæ produces asthma, a spasmodic cough, &c. disorders of the excretions and secretions: 4. Symptoms of deranged functions of the organs of generation.

Hysteria seems to be a nervous disorder—a disproportion between the general assimilation and that of the sexual organs. By attentive observation it appears that this nervous disorder, with all the other symptoms, are derived, for the greatest part, from chronic inflammations and degenerations of the surrounding membranes, vessels, glands, &c.* to such a degree as to produce a change in the substance of the nerves—therefore particular attention should be paid to the state of the power of formation in general, and the reproductive activity of the nervous system in particular.

The causes are all such as irritate the nervous system, an irritable and delicate constitution, premature exertions of the mind, improper diet, &c.;† the use of coffee, cakes, chocolate, and all the delicacies of high life, &c.—tight dresses, a morbid influence on the mind by improper reading, sedatary life, depressing mental affections, disappointed love, excess of coitus, or absolute abstinence from it, diseases of the sexual parts, sterility, or too frequent pregnancies—irregularities or suppression of menstruation, or the suppression of some other disease, such as the gout or a cutaneous disease.

In the treatment, our author observes, that the physician should be attentive to his own manners towards his patient; they must be mild, and calculated to inspire confidence; he ought to discover the truth among the exaggerated accounts of the patient, and avoid the appearance of incredulity. The usual plan of prescribing only for the symptoms is much deprecated, it being considered absolutely necessary to ascertain how far the nervous system is affected. The functions of digestion and sanguinification, being the basis of the nutritive function, must be restored. An exact investigation of the state of the systems and organs will dictate the treatment.

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* Vide Lobstein de Nervi Sympathetici Humani Fabrica usu et Morbis. Parisiis, 1823, a review of which will be found in this number.

† Cooks are frequently affected with hysteria.

II. *Diseases of the Organs of Generation.*

§ 1. *Diseases of the Uterus.*

A. *Derangements of the Uterus.*

1. *Inflammation of the Unimpregnated Uterus. (Metritis.)*

In general, metritis does not occur before the establishment of menstruation, unless it be produced by a mechanical cause. Our author considers this inflammation as either erysipelatous, as where it is limited to the peritoneal covering of the uterus, or phlegmonous, when the whole parenchyma of this organ is affected. Metritis may be idiopathic or secondary, as well as acute or chronic.

The symptoms of the invasion in acute metritis are fever, with chills and heat, frequent pulse, thirst, &c.; a compressing, stinging pain in the affected organ, accompanied by pains in the loins and sacrum; the rectum is likewise affected, whence follows costiveness, painful, and sometimes puriform evacuations; if the anterior surface of the womb be more inflamed, the urinary organs suffer. In violent metritis, the woman lies on her back, with her knees and thighs separated. The symptoms of chronic metritis, are less violent, and are often overlooked, or considered as a menstrual colic, or confounded with other diseases, which is the worst of it, as this is commonly the beginning of the degeneration of the uterus. Such patients suffer with painful menstruation, general uneasiness, fever, dyspepsia, &c. The ledus, and the evacuation of urine are painful, as is also sexual intercourse.

The author mentions only the predisposing and occasional causes, because inflammation is a local, unnatural, vascular and nutritive action; but this must not be taken as if we were to say that each supervening abnormal life of formation is inflammation, whereas all the pseudo-formations, as polypi, meliceris, &c. are, our author thinks, properly speaking, not inflammation, because they are not attended with redness, swelling, heat, and pain, which he in common with most writers believe to be essential characters of inflammation. Therefore he considers as causes, a general plethora, an irritable, morbid constitution, which induces the chronic form of this disease; a general atmospherical constitution, favourable to inflammations—and approaching menstruation, as the period of increased vascular activity of the uterus. Acute metritis seems to be most frequent in the unimpregnated uterus, whilst the chronic affects in preference the womb that has performed the function of parturition. The occasional causes are disappointed love, violent moral affections, especially during the menstrual flow, nymphomania, heating medicines, amenorrhœa, abuse of emmenagogues, cold after dancing, cold bath or injections during menstruation, pressure of the uterus by false positions or badly applied pessaries, abusive and brutal coitus, masturbation, syphilis, metastasis, inflammation of contiguous organs, ulcers of the vagina, &c.

Treatment.—When after a suppression of the menses, or from the effect of cold, a pain in the uterus, with all the symptoms of fever take place, it is important to empty the bladder and intestines, the latter by injections, the former by fomentations on the hypogastric region, and the vapour bath to the genitals. Injections into the vagina are not proper for virgins; if they should be found applicable, those of hb. hyosciami, cicutæ, flor. chamomi. and warm milk, and a few drops of laudanum will be convenient. A strict antiphlogistic diet, with emulsions of poppy, tamarind, and some saltpetre should be prescribed. In order to promote the action of the skin, the liq. mindereri, liq. c. cervi, and the above rules for the re-establishment of the menses may be followed. In a higher degree of inflammation, general and local bleeding should be employed, with due regard to the constitution of the patient. To diminish the excitability of other organs, and to procure a sedative effect on the vascular system, calomel may be given, (two to four grains.) When the acute state threatens to run into the chronic, liniments of the ung. mercurial. united with liniment volat. in frictions are useful. Nitre, from five to ten grains alone, or in an emulsion with or without bland laxatives is indicated; a stronger dose of nitre is only admissible in the highest state of acuteness. The best beverage is lemonade, and if any nourishment may be allowed, with the addition of sugar biscuit, and the juice of raspberries, &c. If perspiration appears, it may be promoted with liq. mind. and infus. sambuci.; if there be some show of menstruation, the pediluviæ, vapour baths, frictions, &c. Sinapisms on the lower extremities, and in torpid subjects, even on the hypogastric region—blisters are dangerous—small doses of calomel combined with opium, extr. hyosciami, aqua lauro cerasi, or infus. valerianæ, may be very useful. If metritis terminates into suppuration, mucilaginous injections per vaginam, a more nourishing diet, bark, &c. are indicated. The power of the art is lost when in consequence of a wrong treatment, the inflammation terminates in gangrene. The use of mineral acids, the elix. Halleri., the phosphoric acid, combined with the valeriana, serpentaria, camphor, modus naphtha, &c. may have some effect. Wine ought to be given; calomel must be avoided; embrocations of wine with hb. menth. crisp. meliss. marjoran, &c. Chronic metritis requires an avoidance of every stimulus of the sexual organs. Calomel, with ext. cicut. in small doses; frictions of tartarus stibiatus and ung. neapolit. —injections of hyosciami, cicutæ, and valeriana, a sponge imbibed with the same placed in the vagina, an issue on one or both thighs, bland laxatives, and leeches on the perineum are all useful.

§ 2. *Hæmorrhage of the Unimpregnated Uterus—Metrorrhagia.*

The characters by which this discharge may be distinguished from the menstrual, are 1st, by the greater quantity of the fluid evacuated; 2d, by quality, the blood being of a vivid red, or darker, fluid or coagulated, pure or of a bad colour, mixed with lymph or puriform matter.

The symptoms of metrorrhagia are 1st, decline of the pulse, its increased frequency, vertigo, weakness, tinnitus aurium, cold extremities, cold sweats, anxious features, nausea, vomiting, trembling, fainting, spasms; 2d, increased volume of the uterus, and the soft and doughy feel of the abdomen; 3d, obliteration of the os uteri; hæmorrhage from the unimpregnated uterus, between the menstrual periods can scarcely occur, unless there be a morbid degeneration of the uterus; 4th, active hæmorrhage is owing to the increased local vascular action and congestion, and its premonitory symptoms are heaviness, noise in the ears, head-ache, vertigo, increase of heat, pressure in the pelvis, frequent desire to make water, &c.

Passive hæmorrhage is the consequence of the declining vascular activity or of the organic destruction of the vessels, whence they offer no resistance to the morbid afflux of blood.

The predisposing causes are a congenital disposition to uterine hæmorrhage, which exists in certain families; such persons have a large pelvis; the soft parts of the body are spongy; large veins even in their superficial ramifications. The causes of active hæmorrhage are the abnormal irritability of the vascular action determined—*a*, by a too luxurious mode of living; *b*, indolence, or sedentary life; *c*, all substances able to determine congestions towards the vessels of the pelvis, such as wine, chocolate, green tea, spices, drastic purgatives, improper administration of emmenagogues, &c.; *d*, passions, anger, joy, fright, &c.; *e*, exposure to great atmospherical heat, or abuse of hot baths. 2d. The more local causes are—*a*, a great degree of irritability, particularly of the nerves of the sexual parts, especially produced by an improper physical education, excess of the mental powers, a dissipated life, and the excessive use of stimulants; *b*, diseases of the organs of the abdomen, languid circulation in the vena porta, sometimes general diseases degenerating or terminating in metrorrhagia, which may be a salutary crisis; *c*, local irritation from pessaries, irritating injections, &c.

Passive hæmorrhages arise from a morbid sanguinification, scurvy, putrid fever, abuse of bleeding, sometimes from degeneration of the uterine substance by syphilis, spongy swelling of the uterus, polypus, scirrhus, cancer, steatoma, leucorrhœa, frequent pregnancies, retention of portions of the after-birth, invertio uteri, prolapsus—vapour baths, foot-stoves, &c.

In the treatment of this affection, as advised by our author, the first thing to be attended to is to place the patient in a horizontal position. Astruc, he says, very correctly condemns the raising of the knees. The patient should be kept perfectly quiet, and freed of all ligatures or tight clothing. Venesectionis to be employed when plethora exists, which is known by a flushed face, head-ache, the excessive hæmorrhage; it may be necessary to repeat the bleeding. The patient should lie on a mattress, taking for her beverage some vegetable acid, as lemon-juice, raspberry vinegar in water—now and then some lemon ice, cremor tartar with nitre; and when the first violence of the flow is removed, the pulp of tamarinds, manna, or tart. tartarisatus may be given. During the convalescence the patient should be restricted to a light diet; avoid a too sedentary life, as well as every sexual stimulus. But if the active hæmorrhage be not the effect of true plethora, but of a morbid local vascular action, the general indication still remains to diminish the general vascular action, and likewise the excited irritability; the means required for this purpose differ in different individuals. In well-nourished, sanguineous, irritable persons, such as are frequently met with in the higher classes; frequent small bleedings from the arm, as a derivative will be advantageous. The aq. rabeliana, the elix. acid. Halleri. or alum, may be given in those of more delicate constitutions, and when the strength is exhausted by protracted loss of blood, frictions, cupping on the abdomen, the thighs, and on the breasts are to be employed. Fomentations with aromatic vinegar on the sexual parts, similar injections in the vagina, mixed with wine; frictions with naphtha on the abdomen; and the application of ice to the feet, are said to be useful. The author insists on the internal use of the mineral acids; in using them for a certain length of time, they should be united with bitter extracts, or the elix. acidum mynsichtii to prevent any unfavourable action on the organs of digestion. To diminish the morbid irritability, Dover's powders with laudanum, or with mineral acids, and especially opium in enemata, are recommended. If the patient be exhausted, infus. melissæ with wine and cinnamon should be allowed; light food, broth, jelly; in cases of faintness and vertigo, Cologne water should be applied to the temples and abdomen. Peculiar attention is to be paid to the state of the functions of the abdominal and digestive organs; if any irregularities exist, they are first to be attended to. The ipecacuanha may have a good effect where there is policholia, and also as a derivative.

When metrorrhagia is caused by improper pessaries, a sponge moistened with the infus. serpylli and wine should be substituted. Syphilis, excrescences of the vagina, leucorrhœa, and other diseases producing this hæmorrhage, must be removed by appropriate treatment. If this flow should be the crisis of another disease, its suppression would be extremely improper. In the case of abdominal plethora, the intervals between the attacks of hæmorrhage should be taken advantage of to administer resolvents, and such remedies as gently increase the intestinal secretion, followed by the use of mineral waters, baths, &c.

The treatment of passive metrorrhagia is likewise founded on a general view of the whole system. Colliquative hæmorrhage as a symptom of the adynamic state or scorbutic dissolution, requires analeptic, astringent stimuli, but prompt means to arrest the flow are urgently required. If there be erethism in the vascular system, (manifesting itself by the lessening vitality of the vessels of the uterus,) the same treatment as advised for active menorrhagia is to be employed, particularly the mineral acids, and the phosphoric acid mixed with the same extracts and laxatives as above-mentioned. The local means, to arrest the flow promptly, when it is so profuse as to endanger life are, *a*, internal, as tinct. cinnamomi, from twenty to sixty drops mixed with a few drops of laudanum. *b*, Secale cornutum to excite the contraction of the womb, recommended by Dr. Prescot, an American physician; ℞. Secal. cornuti, ʒj., coq. c. aquæ font. q. s. ad col. ℥iv. One-third to be taken every twelve minutes. Professor Carus has found the spirituous tincture useful. *c*, Cassia lignea, ten or twenty grains every hour. *d*, Phosphoric acid, fifteen to twenty drops in a proper vehicle. The remedies which act slower, but are more permanent in their effects, are, *e*, alum eight to ten grains in powder, with sugar; the stomach is to be prepared for it by removing the morbid state of its membrane. *f*, The sang. drac. *g*, Gum kino as pulv. stypticus combined with alum and terra japonica are less used.

h, Bishoprick recommends calcinated sulphate of copper, sang. drac. and alcohol. *i*, The sulphate of iron and also the acetate of lead have been employed, the latter our author says possessing no peculiar advantages, and having deleterious qualities, may be replaced by the others. *k*, Zuccari speaks highly of the common salt and nitre, given in doses of ℥ss. to ʒvj. in twenty-four hours; they act, according to our author, merely by revulsion, which renders them appropriate for active metrorrhagia from exalted irritability, as well as the digitalis purpurea, although acting in a different manner. *l*, Fenoglio has been successful with the powder of the dried leaf of the red Muscatel grape gathered in August, dried in the shade, in the dose of ʒj. in broth or water. The ratanhy acts probably in a similar way. Finally objects exciting horror or disgust, such as the wearing a dead toad, touching the dead, &c. are stated to have been of service, acting powerfully on the mind.

External means.—One of the most important is, *a*, friction on the abdomen with the hand; its efficacy may be augmented by some drops of naphtha vitrioli, or the liniment volat., and if there be a high degree of atony, the pure spirit sal. ammon. *b*, In cases of great dilatation, and flaccidity of the uterus, injections, consisting of the decoctions of cort. quercus, ulmi camp., salicis, &c.; the solution of alum with aromatic infusions, (as hb. serpylli, meliss., marjoran, rutæ, menth. crisp., &c.) mixed with wine or brandy; strong bitter herbs and vinegar: the author uses the following preparation:—Infus. hb. melissæ, serpylli, and absinthii, ℔ij. to which are mixed a large cup of strong vinegar, and another of brandy, or two cups of wine; the syringe is to be gently introduced into the uterus. *c*, The tampon acts only immediately on the bleeding ends of the vessels, partly through pressure, or partly by the styptics which are put on it. It is never indicated, our author thinks, when it cannot be applied immediately to the bleeding parts. It should be applied when the bleeding is owing to an ulcer, a carcinomatous erosion, sponginess or softening of the vagina, &c. according to Leroux's manner by dipping soft linen in vinegar, and introducing it in the vagina, and partly into the uterus, or wool, lint, or sponge may be used, and brandy sometimes added to the vinegar. Our author disapproves of powdering the tampon with alum, gum arabic, &c. and rejects the use of the tampon entirely when it cannot be applied immediately to the bleeding part, lest an interior hæmorrhage might take place. *d*, Girdles containing astringent substances, as pulv. querc. bark, nut gall, moistened with spirits and worn round the abdomen, may be useful in chronic and light cases. *e*, Pressure externally over the uterus, is disapproved of by our author. *f*, The application of cold in fomentations, injections, &c. should only be momentary, and after removing the applications, the parts are to be carefully dried with warm flannels. The injections should be retained only for a moment; the effect may be increased by adding some vinegar or brandy with the pure water. The uterus and vagina are always to be cleared of the coagulated blood. The exhaustion produced by this disease is to be corrected by a proper diet and great attention to the functions of digestion.

3. *Leucorrhœa or Fluor Albus.*

This term is applied to every morbid and increased secretion from the vagina, uterus, urethra, and even from the membranes covering the external sexual organs. The quantity of the discharge varies, but it is in general more abundant at the beginning of pregnancy or at the approaching menstruation, and during certain periods and seasons. There is no syphilitic leucorrhœa, our author says, and the menses, although they may become contagious, have no relation to syphilis. Leucorrhœa generally commences just before the period of menstruation, and continues after the natural flow ceases; at first the evacuation is mild, but it gradually increases in quantity and becomes morbid in quality. When leucorrhœa is produced by contagion, its symptoms are more violent. The heat, swelling, redness, and itching and burning of the genitals are greater than in common fluor albus; micturition becomes painful and often difficult, and there is fever and thirst. After this inflammatory state has continued for several days, the discharge becomes more consistent and puriform, and lasts for a shorter or longer period, according to the constitution of the patient. Leucorrhœa will often take the place of hæmorrhoids, of ulcers too rapidly healed, chronic cutaneous diseases, suppressed menses, sudden suppression of perspiration of the feet, and it coexists often with worms, disorder of the organs of digestion, &c.

When leucorrhœa is the effect of a too active nutrition, our author says that the use of too rich food should be proscribed, and the patient directed to sleep on a mattress, and pay great attention to cleanliness. The genitals may be washed with the decoction of serpylli, absinth. &c. and during the summer the patient should bathe frequently in sea or river water. In cases of gastric disorder or worms, mild laxatives will be sufficient when the patient has a good constitution, or when the fluor albus has appeared during the years of physical development, or at the beginning of pregnancy. Leucorrhœa depending only on a local irritation, should be treated by washing with milk mixed with aq. calcis, the use of diaphoretics, and cooling drinks.

If the principal cause of the disease be a scrofulous habit, &c. the primary and general affection should be first removed, and astringent injections calculated to suppress suddenly the discharge, must be avoided. If there be any suppressed secretion, blisters, frictions with the tart. stibiatus, and issues are to be first used. After arterial reaction, if a general or local depression takes place, terminating in an immoderate action of the mucous membrane, every means should be employed to strengthen the system, and especially to give tone to the stomach; for this purpose the remedies recommended by our author are, extr. centaurii min., gentian, trifol. fibr., elix. viscerale Hoffman., tinct. cort. aurant., bals. vit. Hoffm., bark, and afterwards iron; sometimes, he says, cubebs and iodine are of great service. Dr. Orr recommends the first three times a day, in the dose of ʒss. to ʒj. in powder, mixed with water, milk, or theriac. The iodine is particularly recommended by Gimelle, in the Jour. Univers. des Sciences Med. January, 1822. The cure by fasting is one of the means which diminish directly the secretion, and has often succeeded when all others have been unsuccessful. Injections into the vagina with aq. calcis mixed with milk, or with the decoction of poppies, the aq. vegeto-min Goulardi, aqua phagedænica, the solutions of alum, zinc, iron, the acetate of lead, &c. and even the corros. sublim. two to four grains in a pound of water, are recommended. These preparations may also be used as a wash, and a sponge dipped in the fluid introduced into the vagina, first cleaning well the parts of the slimy secretion, and after leaving them in contact for fifteen minutes with the secreting surface, the whole ought to be washed off, cleaned, and dried with a sponge. To diminish indirectly the secretion by increasing the action of the arterial and muscular systems, our author refers to the tonic remedies above noticed, to which may be added astringents mixed with wine, decoct. valerianæ, or hyosciami, sometimes with a few drops of tinct. thebaici, the emplastrum aromaticum to the hypogastric region, spirituous frictions, fumigations with mastic and yellow amber on the sexual organs, the blossoms of the lamium album, of the urtica dioica, the decoct. of the leaves of the lauro cerasus, the ratanhia, the faba Pechurim in the dose of ℈iv., turpentine in doses of ʒiss. daily with sugar; the argentum nitricum, half a grain in pills, three times a day; and the ferrum sulphuricum.

After having arrested the discharge it is necessary to support the system by appropriate tonics, as bark, iron, &c. Should this habitual secretion have been suddenly stopped by a violent cause, it is adviseable to promote perspiration, to bleed, administer mild laxatives, establish an issue, &c.

4. *Dropsy of the Unimpregnated Uterus.—Hydrometra.*

Our author distinguishes three forms of this disease, 1st, hydrometra ascitica, when the fluid is in the cavity of the uterus; 2d, dropsy of the substance of the womb, hydrometra œdematosa; and 3d, hydrometra hydatica.

The symptoms by which this disease may be distinguished, are, according to our author, a phlegmatic habit—advanced age—the probability that the patient is not pregnant—tumefaction of the abdomen, but the increasing volume of the womb is not as regular as in pregnancy, and frequently it is more rapid, and sometimes it increases and decreases periodically—a watery discharge sometimes mixed with slime, hydatids, or blood—the os uteri feels spongy, soft on touching, or doughy, it is generally closed during or after the evacuation, a fluctuation in the uterus only, however, being present when the water is free and confined in its cavity. The following less characteristic symptoms are also given, viz. disturbed digestion, want of appetite, nausea, costiveness, various pains in the abdomen—sensation of heaviness in the pelvis—urine diminished in quantity, turbid, and its evacuation the more difficult in proportion to the increasing volume of the uterus—all the other symptoms of dropsy, such as great thirst, &c. are absent, or mild—prolapsus of the vagina, or of the uterus—œdematous state of the external organs of generation, and of the lower extremities—and hectic fever. Accumulations of this description seldom last longer than six months, and towards the latter period the disease is easily distinguished from pregnancy.

The predisposing causes are, a debilitated constitution, previous metritis, malformation of the uterus, atony of the sexual system in consequence of repeated miscarriages, sedentary life, bad food, depressed spirits, too warm or too damp an atmosphere, frequent sexual irritations without pregnancy, and tumefaction of organs in the vicinity of the uterus, preventing by pressure the function of absorption. The dropsy of the uterus is not unfrequently a sort of imperfect pregnancy in which the uterus alone generates, and not the ovarium, and there is only one tunica decidua to be found in the uterus.

Treatment.—When the water is in the uterus it is advised to evacuate it by means of an obtuse probe, alone or concealed in the tube of a trocar, or if the os uteri be closed, by means of a thin trocar; frictions of naphtha, lin. volat. are also recommended, and the administration of tinct. cinnamomi; and after the evacuation of the fluid a bandage should be placed round the body. To prevent new accumulations, perspiration should be promoted by the liq. Mindereri, flor. sambuci, dry frictions, also mild laxatives and diuretics. When the lymphatic system is deranged, and there are tumefactions of the glands, or chronic calcareous diseases are suspected, or syphilis, &c. they must be first cured. The author recommends the use of squill, senega, digitalis, the juniper berries, &c.

5. *Emphysema Uteri.*

In this complaint the uterus, notwithstanding its volume, remains light, the pains resemble colic, the os uteri is closed by spasms, the air, however, sometimes escapes with noise.

The causes of this affection are previous distention of the womb, cold, putrifying substances in its cavity, as from retention of the placenta, &c. Burns thinks that the air is secreted by the sanguine vessels of the uterus, but this, our author says, is certainly very seldom the case. The treatment advised is the evacuation of the air, and other contents of the uterus, and the warm baths to diminish the spasm.

6. *Steatoma, Sarcoma, Osteo-steatoma Uteri.—Lithometra.*

The author mentions the excessive volume of these tumours, some of which weighed eighty pounds. They are but seldom, he conceives, of an inflammatory character, and are recognised by a feeling of heaviness and pressure in the pelvis—pains extending to the lower extremities, the rectum, and urinary apparatus—and retention of the feces and urine; afterwards the function of digestion begins to be impaired, the appearance becomes cachectic—watery accumulations form in the cavity of the abdomen—the feet swell, becoming œdematous—menstruation is deranged, or degenerates into leucorrhœa, sterility, or miscarriages—the breasts are sometimes unequally tumefied—the abdomen dilated, in proportion to the volume of the tumours, the hardness being more perceivable above the pubis, as on the fourth or sixth day after delivery, the os uteri is commonly somewhat tumefied, but if the pseudo-formation is situated higher up in its normal state, if the whole uterine substance is degenerated, the vagina feels knotty, tumefied, and indurated; the exploration per anum will often discover these tumours.

The author mentions the different operations for the extirpation of these tumours. He recommends the use of sabina, lauro cerasus, cicuta in extract, and injections; local bleeding; frictions of tartar emetic; absolute diet; frictions with iodine; and the internal use of calcined sponge. To prevent painful efforts during the alvine evacuations, mild laxatives should be employed.

7. *Polypus.*

The symptoms of polypus resemble frequently those of an incipient pregnancy, but this state continues the same for six months and more. If the polypus increases, the vagina becomes harder, the os uteri oval, and the more the polypus descends in the uterus, the more sensible the dilatation will be, and a round, hard tumour is to be felt without causing any pain, but which bleeds easily. The enlarged uterus compresses the rectum and neck of the bladder; evacuations of blood, mixed with fibres of the polypus, take place; the patient emaciates, and all the symptoms of hectic fever make their appearance. The polypus will sometimes pass into the vagina, and produce many accidents.

The etiology of these pseudo-productions is undoubtedly, our author observes, a vicious mode of nutrition, but he does not admit that they may be produced by a portion of the placenta remaining in the uterus; he thinks, however, that improper and rough management during delivery, and an improper subsequent treatment may favour the development of such degenerations of the interior membranes, as well as a degenerated or ill-treated syphilis.

Treatment.—Our author describes all the modes of extirpation practised by different physicians, and praises SAUTER's simple instrument which is an imitation of that of BOUCHER's for the ligature of polypus. After applying the ligature, in irritable subjects it is prudent to administer the morphium, cooling emulsions, injections of infusions of chamomile, valerian, hyosciamus, &c. and to recommend a strict antiphlogistic diet. When the polypus begins to separate, if the suppuration be offensive, aromatic infusions are advised as injections; we should think that the best would be the pyroligneous acid. Sauter removed a polypus of two pounds and a half with the forceps. The destruction of the root will be effected by suppuration. Delicate patients require that their strength be supported by the use of bark, with aq. calcis, infus. serpylli, and the essence of myrrh, and in general, the physician has to watch the state of the general system. The author mentions the different methods of removing the polypus by incision.

8. *Intumescentia et Induratio Uteri.*

This complaint occurs in flabby, well-nourished individuals, who take little exercise, and labour under abdominal plethora and hæmorrhoids, and is often taken for carcinomatous tumours, into which it may terminate, and has probably often been cured as such.

The treatment as laid down by our author, consists in re-establishing the circulation, which is stagnant—in restoring the distended vessels to their natural diameter, and in increasing the resolution of the transudations into the cellular membrane. To effect these indications, the mineral saline waters, the extr. mellago graminis, taraxaci, &c. combined with neutral salts, sulphur, and even the moderate use of the antimonial and mercurial preparations, the aurum muriaticum natronatum, the alkalines, digitalis, aq. lauro cerasi, and extr. chelidonii, have frequently been of service. Externally, the alkaline baths, the frictions on the loins with the iodine ointments, and derivative frictions with tart. antim. are recommended; great attention ought to be paid that there be no suppression of an habitual excretion, &c.

9. *Scirrhus et Carcinoma Uteri.*

This dangerous disease assumes a variety of forms. Von Siebold has lately, (Ueber den Gebärmutterkrebs, Berlin, 1824,) distinguished two general forms. The first, glandular carcinoma; the second, fungous hæmatodes.

Scirrhus begins in a gland often where there is a scrofulous disposition, with a slight, inconstant pain in the interior of the pelvis, increasing and becoming manifest by sexual intercourse, during the menses, in evacuating the urine or fæces, or by touching the abdomen, or on changes in the weather; this pain becomes stinging, burning, shooting from one point, and extending over the whole pelvis, joined to a feeling of heaviness, paralysis of one or both thighs, or varicose veins. The breast often shows various indurations; menstruation becomes gradually irregular, and the fluid of a bad colour and offensive. The digestion is disturbed, taste perverted, tongue furred, nausea, vomiting, insomnia, the pains returning stronger in the evening, fever, loss of strength, skin in the beginning of a grayish hue, and afterwards yellow.

The ulceration once established, these symptoms increase; the pains become intolerable during the night, hectic fever appears, and small spongy portions of the uterus are discovered flowing with the fetid ichor; pressure on the abdomen is painful; the external sexual parts are often œdematous; the os uteri and neck very painful and hard; the vagina covered with a slimy, bad-coloured matter; finally disorganization spreads over all the surrounding parts. The symptoms of the fungous or carcinoma hæmatodes originating from an intumescence of the uterus, are in the beginning, commonly those of hæmorrhoids and hepatic affections; later periodic pains and feeling of fulness in the pelvis, irregularity of the menstrual flow, &c.; the vagina is tumefied, covered with vesicles filled with a mucous blood, and which in bursting give issue to the fluid, but spongy vegetations of great variety continue destroying, with many sufferings, the existence of the patient.

Respecting the etiology of this disease, the author admits that there is no local affection without the co-operation of the whole system; in the glandular carcinoma it is a morbid condensation of an organic substance; and in the carcinoma hæmatodes, of the mass of the blood itself. This condensation originates in inflammation, and a consequent exudation, or in a morbid metamorphosis ending in a real degeneration, and often occasioned by contusions or pressure.

If the general assimilation is energetic enough, a resolution may take place; but if the inflammation persists, the primitive point, like a point of ossification, will increase, and the general system is soon affected.

Among the predisposing causes are a scrofulous or a hæmorrhoidal constitution, grief, disorders in the circulation of the vena porta, syphilis, hysteria, absolute chastity, suppression of the menses, hæmorrhoids, or fluor albus, hard labour in parturition, violent manipulation or roughly-applied instruments; also dissipated life and irritating injections. Carcinoma uteri begins, our author says, almost always in the os uteri. The more direct causes are the incomplete resolution of inflammation in ill-treated or neglected puerperal fevers, the excess of heating purgatives, ceasing to nurse when the individual has abundance of milk, &c. The period of the cessation of the menses is peculiarly favourable to this disease.

The dynamic treatment of scirrhus consists in removing all those objects which by pressure may have occasioned it, such as pessaries, and all constitutional affections or suppressions of certain morbid secretions. Attention to the state of the digestive organs is of the greatest importance; to relieve sanguine engorgements of the abdomen, leeches should be applied to the perineum, the hypogastric region, or the thighs. The functions of the skin are to be maintained, and to relieve violent pains, baths, injections of the infus. papaver, hyosciami, cicuta, frictions on the abdomen with ol. hyosciami, injections, and lavements with opium, and the judicious use of narcotics internally are recommended. In order to diminish the excessive action of the capillary vessels, mercurial preparations, Hahnemann's merc. solubilis in small doses, with resolutive extracts, in frictions; the use of aq. lauro cerasi, extr. cicutæ and belladonna, &c. are useful. Dr. VEYER recommends* particularly the following: R. Extr. belladon.

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* Horn's Archives, 1820.

ʒj. f. l. a. c. pulv. hb. belladon. q. s. pills gr. ss. consp. pulv. hb. belladonn. d. s. Every three hours one pill to be given. He employs also the decoction of belladonna in milk externally.

Westring has successfully employed the calendula officinalis, the extract of which he gives in pills of two grains, six to sixteen every morning, and at the same time chloride of gold in frictions to the labia pudendi and gums. The injections of the solut. extract chærophylli sylvestris in the decoction of the same herb, &c. is used; but our author says that too much confidence ought not to be given to these remedies.

The same may be said of the sedum acre, the juice of which has been used, the phosphate of iron daily from thirty to forty grains, and a complete mercurial course. Iron, and every kind of tonic, must be given with the greatest caution as they irritate. Wenzel has recommended Fowler's mineral solution. Hahnemann advises the tincture of iodine, five to ten drops, which may be employed in the first period of the carcinoma hæmatodes. Farr recommends the fucus helminthochortos. Baudelocque's practice of applying leeches frequently to the vagina, by means of the speculum vagina, deserves, our author thinks, more attention; the ulcerated parts, he says, should be dressed with cerate containing opium, and the excrescences touched with lunar caustic. Absolute diet might be advantageous. Hæmorrhage from the increasing disorganization of the uterus requires the application of sponges imbibed with the decoct. cort. salicis, quercus, ulmi. camp., or some styptic powder. Due attention is to be paid to the violent pains. As a powerful antiseptic, the acid pyrolig. has been praised, but our author says has not sustained its reputation; and that the administration of the belladonna from a half to one grain is perhaps the best.

Our author comes now to the operation, and describes Osiander's method. Wenzel, its antagonist, is opposed to a partial excision, and thinks that the uterus ought to be excised like a polypus by the ligature; he never, however, performed the operation himself. Siebold and Struve have advanced the same idea, and to separate after the ligature the whole uterus with Pott's bistoury, which operation T. Nep Sauter has successfully performed. Similar operations have been undertaken by Langenbeck, Siebold, and Paletta, but the result has been, sooner or later, fatal. Cenni gives a description of an instrument with a blade passing through a speculum vaginæ, which cuts safely and easily the portion of the vagina; this is at least something better than Gutberlet, who proposes to cut through the abdomen. Langenbeck's operation was rendered more easy by a prolapsus uteri.

B. *Displacement of the Unimpregnated Uterus.*

1. *Prolapsus Uteri.*

The author considers the prolapsus of the uterus incomplete when a part of it remains in the natural cavity; complete when it reaches the external sexual parts.

A prolapsus of long standing changes commonly the substance of the uterus, which becomes tumefied, bleeds easily, and cannot be replaced with facility; and often the retroversion of the vagina, and its adhesion to the uterus, render it impossible: several affections, such as leucorrhœa, scirrhus, &c. may be the consequence of this disease. The author saw a girl who never had been pregnant, affected with such a prolapsus and tumefaction of the uterus, that it could not be reduced but with the greatest difficulty.

The predisposing causes are a phlegmatic habit, a large pelvis, frequent hæmorrhage, leucorrhœa, miscarriages, &c. The occasional causes are violent exertions during parturition, especially when the os uteri is very little dilated, costiveness, violent vomiting, coughing, diarrhœa with violent tenesmus, hard labour, jumping, &c. When the prolapsus takes place suddenly, and without any apparent cause, it may produce inflammation, fever, vertigo, &c.; tight-laced corsets are a frequent cause, as well as of innumerable other affections.

The indications of treatment laid down by our author, are—1st. To remove the most immediate and occasional cause; and particularly when the pressure has produced inflammation, the emollients and narcotics, such as hyosciami, local and general bleeding; the excoriations should be dressed with lotions containing the acetate of lead. When the intestines by their increased volume have, by pressing down the uterus, produced the prolapsus, instead of having recourse to pessaries, &c. it will be better to use a resolving treatment, which will, by increasing, with mild and cooling laxatives, the intestinal secretion, diminish vascularity of the tumour, and the other viscera, and joined to the use of strengthening baths will remove the disease. Having thus fulfilled the first indication, or if there be no accidents requiring a particular treatment, we should proceed to the second indication, which is to *reduce* the part. A small prolapsus will reduce itself as soon as the patient places herself in a horizontal position, or when the finger is introduced a little further in order to reduce a more complete prolapus; in the latter case a more complicated treatment is necessary. The bladder and intestines should be emptied, by enemata, &c. after which, the patient should be laid upon the bed, and a cushion placed under the loins—if the uterus be yet within the vagina, the index and middle finger anointed with oil are to be introduced, and pushing cautiously into the vagina until the digital extremities are fixed on the vaginal part, the uterus will be brought back to its regular position. Should the uterus be found entirely outside of the genitals, it should be first anointed with oil, the thumb, index, middle, and fourth finger, placed on the vaginal portion, pushing cautiously, and with a rotatory motion, alternately to the right and the left, into the cavity of the pelvis in its natural direction, paying at the same time great attention if the reduction occasions pain, indicating perhaps other parts having followed the uterus in its prolapsus; in which case the reduction should not be completed, but we should endeavour to keep at first the womb only within the vagina, and try to effect gradually the reduction after some time. If some indurated organ or adhesion prevents it, no further exertion should be made. 3d. After the reduction, a horizontal position is to be preserved for two or three weeks; and the patient should use tonic baths, half baths, injections of the decoct. salviæ, serpyllum, absynth., querci, salic., &c. sometimes with claret and some alum; the aromatic plaster on the hypogastric region; a sponge in the vagina imbibed with bitter and astringent liquids, bark, and claret. The author in treating of old inveterate cases in aged subjects, describes different pessaries and bandages, and their application.

2. *Obliquities of the Unimpregnated Uterus.*

1. *Antroversio Uteri.*—Each of the inclinations, the anterior or posterior produces, says our author, different accidents according to the compressed parts; sometimes various malformations of the pelvis, or exostoses and degenerations of the uterus, or the surrounding parts. Before attempting to replace the uterus in its natural position it should be ascertained whether there be any adhesions, and if there be, Siebold advises them to be separated with the knife.

2. *Retroversio Uteri.*—This abnormal situation of the uterus, in which the *bas fond* sinks into the cavity of the sacrum, and the neck is situated behind or above the arch of the pubis, seldom happens except during pregnancy, but is most frequent during the first months of pregnancy. Our author does not agree with Richter, who does not admit the existence of retroversion when the uterus is not pregnant. He says that he has observed a case in which it constantly happened, accompanied with violent hæmorrhoidal pains and spasms, at every menstrual period; and, as it has been remarked by Siebold, the case is often not observed because a manual examination has been neglected. (Vide the highly interesting work of W. T. SCHMITT, Wien, 1820, and of MEISSNER, Dislocationen der Gebärmutter.) Professor DEWEES also has seen two or three cases of retroversio uteri when the uterus was not impregnated.

3. *Inversio Uteri.*—Is complete or incomplete. The works of Hunter, Johnson, Clarke, and John Windsor, are referred to. Chevalier extirpated the uterus when inverted and affected with hæmorrhage, scirrhus and cancer. Our author prefers Hunter's method.

II. *Diseases of the Vagina.*

Under this head our author treats briefly of polypi of the vagina; then of prolapsus; and hernia vaginalis, which when further developed may become a hernia perinæi; the author refers to the excellent works of Scarpa, Seiber, &c.

III. *Diseases of the Ovaria.*

These are, 1. *Inflammation*, *oophoritis;* on this our author has given an excellent treatise. The predisposing causes are reading improper books, a precocious dissipated life, and all the causes determining an afflux of blood towards the sexual apparatus.

It has been observed that this affection often occurs in public women when they are brought to the hospitals or houses of correction, to be treated for syphilis or psora. The symptoms are—1, sensation of pain in the affected organ, only, however, on pressure; 2, a swelling of the size of a walnut to be felt behind the arch of the pubis; 3, symptoms of fever, such as thirst, diminution of the secretions of urine, costiveness, agitation, head-ache, &c.; 4, affections of the nervous system, and nymphomania being the effect of chronic inflammation of the ovaria, the patients become melancholy, and exhibit symptoms of that disease which may be considered as a higher degree of those taking place after conception. Oophoritis is often combined with inflammation of the surrounding organs, especially with metritis. The exterior treatment consists in the antiphlogistic method. Carus used internally calomel, flor. zinci and castor, emulsions of poppy seeds, and nitre; but great attention is to be paid to discover the special cause, the state of the skin, and whether there be a suppression of some natural or morbid secretion, &c.

If an abscess form, our author says that it is best to leave its discharge to nature, and that art ought not to interfere until it should be ascertained that the cyst is adherent with the abdominal envelope, in which case Osiander's hysterotome may be employed.

2. *Hydrops Ovarii.*—It is often observed that the normal production of this organ after conception, being vesicles filled with fluid, which is the beginning of all organic formations, that the accumulation of fluid by an excess of local activity is therefore not unfrequent.

Watery accumulations to the amount of from twenty to eighty, and even to one hundred pounds have been seen, sometimes with a quantity of hydatids. The left ovarium, it is said, has been found more frequently affected than the right. The generative power or faculty of vegetative formation, our author observes, seems to be greater on that side of the human body.

No symptoms are perceived until some tumefaction becomes sensible, with a feeling of an obtuse pressing pain; in the iliac region there is a circumscribed tumour, with fluctuation, increasing and filling the whole abdomen, unless the fluid be of a gelatinous nature, when the fluctuation will not be sensible. The patient loses her appetite, and has nausea, vomiting, despondency, melancholy, deranged menses, leucorrhœa, scanty urine, and the disease frequently terminates in general dropsy.

Treatment.—When the disease has reached a certain degree, there is no hope of absorption; a palliative method should be first tried, but if an operation becomes necessary, it must be performed by paracentesis, or by extirpation; the first has but few advocates. The author saw, however, a case similar to that of Hunter, in which a woman had her life preserved during twenty-five years, and had the paracentesis performed sixty-four times. If the fluctuating tumour should reach deeply, and the fluctuation become more sensible inside, the opening, he says, might be practised through the vagina.

3. *Various Degenerations and Formation of Foreign Bodies in the Ovaria.*—The cells of the ovaria when affected with dropsy, are but a higher degree of morbid development of Graafe's cells; therefore various extra-uterine fragments or malformations and degenerations, should not be considered as remains of embryos, because similar formations have been found where no conception could be suspected. Genada found the heart of a duck covered outside with feathers; the author found them in the bronchial cells of a chicken. The female, says Hegewisch, contributes for her part in generation only the reproductive formations of the new individual.

Respecting the treatment, the author refers to the observations on the extirpation of morbid ovaria by Mr. Lizars, of Edinburgh.

IV. *Diseases of the Mammæ.*

§ 1. *Morbid Development of Breasts.*

1. Congestion and pains in the breasts are often occasioned by a sedentary life, want of fresh air, heating diet, too warm dress, and especially warm beds, amorous thoughts, and real debauches, fre-

quent touching of them, especially by men; using essences, oils, painting, &c. as well as tight lacing.

2. *Imperfect development and early disappearance of the Breasts.* These being the effect of a general deranged nutrition, will require a treatment directed to the whole system. The excessive nutrition of these organs are produced by a morbid assimilation. Mild aromatic baths, a convenient diet, an active life, soft frictions with a flannel, impregnated with the steam of burnt sugar, and a prudent use of the iodine salve.

§ 2. *Peculiar Degenerescences of the Breasts.*

1. *Milk-knots.*—They are uneven, immobile, not painful tumours, which generally terminate in resolution, seldom in suppuration except during the period of nursing. The treatment, according to our author, consists in favouring the evacuation of the milk, by dry warm applications, fomentations, &c.; the application to the breasts of bags filled with the special resolvent of hb. serpylli, majoranæ, hyosciami, &c. covering the mammæ with the skins of rabbits, cats, and resolvent plasters of cicuta, meliloto, liniments, as the volatile, with camphor, &c. It is also advised to stimulate moderately the lymphatic system, and maintain the function of the skin.

2. *Scrofulous indurations of the Breasts.*—These ought to be treated chiefly by remedies addressed to the general system.

3. *Ortheroma, Meliceris, and Steatoma of the Breasts.*—The breasts sometimes become ossified or filled with hair or hydatids. These tumours are commonly situated immediately under the skin, which is unaltered, hence they are not painful, and are soft to the touch; sometimes they inflame and suppurate, and occasionally they attain an immense volume. They seldom are cured by resolution. All applications and internal treatment having little or no power over these excrescences, the excision is the most efficacious remedy. Richter proposes, when the tumour is very large, to empty it with a trocar, to inject the cavity with irritating substances to excite suppuration, or to pass a seton, and if part remains, it may be easily extirpated.

4. *Lymphatic and Blood Tumours in the Breast.*—These our author says should be opened, and their cavities obliterated by adhesion.

5. *Scirrhus and Cancer of the Mammæ.*—This has a near relation to that of the uterus. Benedict distinguishes, 1, a cutaneous cancer of the mammæ, which he divides into primary, happening seldom, and the more frequent, connected with the cancer of the gland of the breast. 2. Scirrhus of the breast, which he divides into, *a*, knotty

scirrhus; *b*, resembling lard; *c*, vesicular; *d*, fungous hæmatodes. This disease commences with a small, painful, immoveable knot, which the patient does not notice for some time; the knot becomes more fixed; the pain increases; there is a sensation of burning, or a sting given now and then, especially at sudden changes of the weather, at the period of the menstrual flow, &c. The general appearance is cachectic; there is emaciation; the skin is yellowish; finally the knot becomes more painful; the skin which covers it becomes bluish, and an ulcer opens, the nature of which cannot be mistaken, but which is likewise incurable. The ulcer itself is deep, continually painful, and discharges a very offensive ichor, carrying portions of the ground of the ulcer with it, and causing profuse bleeding. The power of assimilation is gradually destroyed, hectic fever, sleeplessness from the excruciating pains, and finally death terminates the whole. The causes are the same as those above mentioned, only some local incidences may determine the disease to fix itself in the breast.

Our author recommends, in order to bring to resolution the scirrhus, the emplast. cicutæ and empl. mercuriale, the fel. tauri with sal ammoniac., the juice of the fresh leaves of the calendula officinalis, the sedum acre, the belladonna, the unguent. neapolit. with the liniment. vol. camphorat., the iodine, &c. Frequently repeated small bleedings have been found beneficial. Young has proposed mechanical pressure, but its utility is very doubtful. To diminish the pain, the patient should take the juice of the cicuta, belladonna, the digitalis, the lauro cerasus, the calendula officinalis, the onopordon acanthium, the sedum acre, chenopodium bonus Henricus, &c. Arsenic, our author says, has done but little good in cancer of the breast, and the same may be said of the preparations of gold, lead, and the muriatic steam. The powder of charcoal is useful as far as it corrects the offensive smell of the ulcer. Opium is the best palliative when the pains have reached the highest degree. The moderate use of the mineral acids is also recommended. The author describes the methods of excising the cancer and scirrhus of the breast, and terminates his first volume with some brief observations, on the morbid conditions of the external parts of generation, and of the urinary apparatus, and on the diseases of women during the third period of life.

We have, however, already so far exceeded our limits, that we must pass them over, and we do so the less reluctantly, as we do not find any thing here particularly worthy of notice. On some future occasion we shall present an analysis of the second volume, which comprises midwifery proper.

Art. XVIII. *De Nervi Sympathetici Humani fabrica usu et morbis commentatio Anatomico-Physiologico-Pathologica.* Tabulis æneis et lithographicis illustrata auctore Joh. Frid. Lobstein, Medicinæ clinices et Anatomiæ Pathologicæ in Facultate Medica Argentoratensi Professore, Nosocomi Civium Medico Obstetrico Primario Plurium, Societ. Medicarum Sodali.

On the Structure, Function, and Diseases of the Human Sympathetic Nerve. By John Fred. Lobstein, Professor of Clinical Medicine, and Pathological Anatomy, in the Medical Faculty of Strasburg, &c. &c. Paris, 1823. Illustrated with eight plates. pp. 174. 4to.

Having devoted for a series of years, particular attention to the anatomy, physiology, and pathology of the sympathetic nerve, M. Lobstein has offered to the profession a work upon this interesting and difficult subject. Enjoying great advantages from his connexion with the Medical School of Strasburg, his treatise, as might have been expected from his fame, is drawn up with elaborate skill, and has been frequently quoted in terms of high commendation. Locked up, however, as it is in the Latin language, it has been a sealed treasure to many of the profession in this country; and to those who are familiar with the language, the work is inaccessible, but few copies having ever been imported; we therefore conceive that we shall be doing a benefit to the profession, by making them acquainted with this valuable work.

The author divides his treatise into three sections; the first comprises the Anatomy, the second the Physiology, and the third the Pathology of the Sympathetic Nerve. The first section is divided into four chapters, in the first of which, is given a general description, of the sympathetic nerve considered in relation to its origin and termination—of the connexion between the nerve of the two sides of the body—and of its structure, and distribution into the different plexuses.

The second chapter contains "Various observations on the history of the sympathetic nerve;" and a careful scrutiny is made respecting the cephalic extremity of the nerve, and the sentiments of Ribes, Cloquet, &c. on the subject are given. M. Lobstein admits that he has often seen the ganglion of Laumonier, to which Ribes says, a filament runs from the sympathetic nerve, whence the sympathy arises between the retina and the nerves of the iris; but never those filaments of nerves, which Cloquet has represented in his plates, passing from the upper cervical ganglion, and forming an anastomosis with the nasal nerve. He thinks neurologists have been sometimes deceived, from having mistaken elongated shreds of cellular tissue, for nerves.

Jacobston's anastomosis in the ear is then examined, and the question whether the sympathetic nerve is ever interrupted in its thoracic portion, is considered; the opinions of Haller and Bichat in the negative are opposed by our author. The relation of the nerves to the sanguineous vessels and the differences which exist between the branches, plexuses, and ganglia of this nerve, are the concluding subjects of this chapter.

The third chapter contains a description of "The evolution of the sympathetic nerve in the fœtus." In this interesting chapter, M. Lobstein examines the sympathetic nerve in itself, and in relation to the different organs, and shows its development in fœtuses of fourteen weeks, five, six, seven, and eight months of age, and in a perfect state. He considers also the condition of this nerve in fœtal monsters, chiefly acephalus, in idiots, and in advanced life.

The fourth chapter is devoted to the internal structure of the sympathetic nerve, the trunk, branches, ganglia, the substance of the ganglia, and their vascularity, &c.

It would be foreign to our purpose to follow our author in his details, as we desire to give merely a conspectus of this portion, and to devote such space as is allowed us, to the exposition of the latter and practical portions of the work.

Our author commences the second, or physiological section, with the opinions of Willis, Vieussens, Lancisi, Winslow, Meckel, Linn, Johnston, Haase, and Scarpa, respecting the use of the ganglia. He then traces in detail the nerve, and gives the theories of Bichat, Reil, Wilson Philip, Wutzer, and Professor Broussais, respecting its functions and importance.

> "The opinions of physiologists having been previously considered, (says M. Lobstein,) it will be proper for me carefully to explain my views respecting the healthy functions of the sympathetic nerve, and in order that the importance and use of this nerve may be more conspicuous, I will begin with some general principles and observations, with which comparative anatomy has supplied us."
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> "No one certainly will deny, (says M. Lobstein,) that there exists in animals a certain central influence, with which life is intimately joined. No one, moreover, will deny that this central influence is inherent neither in the osseous, vascular, or muscular systems, nor in the nutrient organs, but in that initial system which is nobler than the rest, involves the first character of animality, and after whose removal all power perishes. This certainly is, and can be no other than the nervous system."

The investigation of this subject leads the author to trace the development of the nervous system from the lowest class of animals which possesses a mouth and digestive organs, up by regular stadia to the most perfect animal, man. In the lowest he shows nerves or ganglia, or both to exist, about the mouth or œsophagus, or between them and the anus, and in proportion as the animals are elevated in the scale, we find the nervous system increased in size, and augmented in influence. When we arrive in our ascent to the medicinal leech and the earth worm, we find a series of ganglia which have some analogy with the sympathetic nerve and medulla spinalis of man.

It is only by clear expositions of this subject that we can comprehend those remarkable differences in animals, which enable some to survive weeks and months after decapitation, or even to reproduce an amputated limb, whilst others are destroyed instantly, by a simple lesion at the base of the brain.

Our author next offers some corollaries, from which we extract the following:

> "There exists a relation between the sympathetic nerve and par vagum, viz. that one may take upon it the functions of the other. For it is seen in the inferior vertebrated animals that the par vagum is the more prolific in branches distributed to the intestines as the sympathetic nerves is less, and it is found that no sympathetic nerve exists in some invertebrated animals, and in which its functions are performed by the par vagum only. Whence it follows that the par vagum, should be enumerated by the same law as the sympathetic, with the nerves of vegetative life."

Our author considers the sympathetic,

> "A nervous system which exists in the lowest scale of animals, is peculiar to the nutrient organs, and performs its functions through an especial property, which prior to the appearance of the brain constitutes a nervous centre; and which when the cerebral centre exists in animals, is connected with it, but never composes with it one undivided apparatus, but always retains its pristine form and habit. That such a system is endowed with the greatest dignity is self-evident."
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> "On the other hand, back to the remotest periods, physicians wisest in their observations of nature, have declared that there is placed in the lower part of the epigastrium, a being or principle, apparently immaterial, from which they seek the cause of the phenomena, perceptible in the sound or diseased states of the body. The fact is, therefore, that in the schools of physiology, doctrines have been taught respecting the epigastric centre, power and influence of the diaphragm, pylorus, &c. which prove physicians to have extremely well indicated the vital phenomena, but to have greatly erred in their cause and seat."

He proceeds afterwards to show, that the crowd of sensations perceived in the epigastrium, are not referrible to the muscles, vessels, or gastric organs, but to the ganglionic plexus of nerves, exclusively reposing on the gastric trunk, and called by WRISBERG the abdominal brain.

Our author now assigns himself three cardinal points for consideration, in a physiological disquisition upon the nature and character of the sympathetic nerve.

> "1st. The forces with which it is endowed. 2d. The functions over which it presides. 3d. The mode or mechanism by which its forces are distributed and functions performed."

M. Lobstein, in common with GALL, BICHAT, BROUSSAIS, REIL, &c. &c. considers it not improbable that the ganglia which diversify the trunk of the sympathetic nerve, are the laboratories of the vital principle which maintain the tone, strength, and energy of the organs over which they preside. The nature of the internal or egredient branches which run to the viscera, he considers yet an "arcanum." He rejects the idea of SCARPA, that the ganglia exist only for the mechanical use of the mixture and distribution of filaments.

He adduces arguments to prove, that there is an emission and retrogradation, exit and return of the nervous principle in the sympathetic as in the cerebral nerves, called the organs of the senses. To wit, from the trunk to the branches, and from the branches to the trunk; with this difference, that in a normal state the impressions which arise in the viscera, remain there, but in cases of disease which he afterwards treats at some length, ascend into the brain, are perceived there, and excite a similar, though obscure, impression in the mind.

He considers the muscular fibres of the heart, stomach, diaphragm, intestines, and anterior muscle of the neck, as having the same relation with the sympathetic nerve, as the brain has with the voluntary muscles. But the greater part of the sympathetic nerves attend the arteries and terminate in their outer tunic.

> "Hence it is manifest," says our author, "that vessels are primitively constituted under the government of the nerve, and that from them the force and energy are borrowed, with which they operate in the functions of nutrition and secretion. I suspect also, that the nervous power in organs which the arteries enter, is diffused as it were by the cellular structure in which the nervous filaments vanish; whence the intimate structure of the organs is placed in a nervous atmosphere, or penetrated by it."

Our author now notices the physiological experiments upon the sympathetic nerve in living animals, for the investigation of its vital forces.

From this subject, he passes on to the investigation of galvanic experiments upon dead animals, and narrates some of his own, upon the intercostal nerve, in puppies and dogs, and in one instance upon a human fœtus, which had its skull broken, brain evacuated and almost destroyed in laborious parturition. In the latter experiment, the muscles quivered, the heart trembled, and the intestines stiffened from the contact of the air alone; but the sympathetic nerve, when armed with the galvanic wires, excited no phenomenon in those organs which are able to produce a motion in their structure; whilst the cerebral nerves under similar circumstances, produced vivid muscular contractions.

It becomes a question, indeed, whether the galvanic irritant should produce any effect in the abdominal nerves, which perform the functions of secretion, and whose action, if any exist, is not perceptible to the senses.

M. Lobstein with great candour, however, admits that other physiologists, in whom he places the highest reliance, and whose obsertions he details, have been led to different conclusions. But all these seem to have been more or less connected with the cerebro-spinal system—as those of Willis, Baglivi, and Lower, "who saw, after the section of the par vagum, in quadrupeds, (which is connected to the sympathetic nerve,) the heart to palpitate, and the larger vessels fill with blood." "Ens having lacerated the medulla oblongata, says, motions instantaneously followed in the heart, which increased the violence of the pulse." This is what we presume ought to ensue, from our knowledge of the mutual dependence of the systems of vegetable and animal life upon each other, which is much greater than Bichat has admitted it to be. We would presume also in the inferior animals of warm and those of cold blood, that the heart might have its motion restored, or accelerated by galvanic excitement, which the experiments of Humboldt, and others, have sufficiently proved. As animals sink in the scale of physiological perfection, both systems of nerves, depreciate in structure and power, but not in equal ratio. The brain at length disappears, and in the opinion of some physiologists, has its structure and functions partly merged in the sympathetic. This does not appear to be the opinion of M. Lobstein, but it seems to us to explain the reason of his having failed in his galvanic experiments, where he applied the wire to the intercostal nerve. It is his opinion that there is no essential difference between the sympathetic nerve, and the encephalo-spinal nerves, either in regard to physiology or anatomy, and Humboldt has proved by experiment that the galvanic agent does not act, except through the sensible or nervous fibre. "Experiments have proved that in man, the galvanic fluid permeates the abdominal nerves, and promotes the peristaltic movements of the intestines."

Our author now proceeds to draw a comparison between the sympathetic and encephalo-spinal nerves; first in regard to function, and shows their analogy from experimental results upon the system—from the phenomena that are developed in visceral diseases, and from the impotency of volition over the stomach, diaphragm, abdominal muscles, and iris, in emesis, tussis, parturition, and the phenomenon of sight, although all these organs receive cerebral branches. But he says, "on the other hand, physiological experiments prove that the heart may be excited to contraction by the nerves of the encephalo-spinal system."

He next proceeds to an examination of these nervous systems in regard to the vital forces with which they are endowed, and the functions they exercise; in which he discovers considerable resemblance.

We cannot follow him through this interesting portion of his work, but must be content with a selection here and there of some few of the observations that particularly strike us.

> "We have discovered," says M. Lobstein, "that in the inferior vertebrated and invertebrated animals, the sympathetic and par vagum are by turns, incomplete or entirely wanting, but with this rule, that the existing nerve, always supplies the functions of the absent." Again; "innumerable observations prove that voluntary nerves may become involuntary, and vice versa, which certainly could not occur, if there was great diversity in their nature, fabric, and vital power."

Our author finds support to this opinion in convulsive diseases, and in the aberration which the heart experiences, by mental or visceral irritation, from its natural or primordeal stimulus, the blood. Again he says—

> "It does not seem to me improbable, that a voluntary muscle like the pectoralis major, might become an involuntary one like the heart, if it were converted into a hollow muscle, and uninterruptedly bathed and distended with blood, especially arterial, filling itself; and I am far from disbelieving that it would contract against the influence of the mind.

For these and other reasons, our author dissents from the opinion of Reil, that there is in the ganglia of the sympathetic nerve, an apparatus that at one time connects, and at another isolates the two nervous systems. He considers—

> "The following sufficient for the explanation of the phenomena, perceptible in the nerves of vegetative life. 1st. The forces with which all nerves are endowed have the same character. 2d. Peculiar stimuli belong to each class of nerves, to which they are accustomed from the primitive evolution of the fœtus."

Our author next enters into the consideration of the functions and uses of the sympathetic nerve; on this subject he remarks—

> "The sympathetic presides over the function of nutrition, not only imparting nerves to the chylopoietic organs, and sustaining their power and energy, but also distributed to the arteries which carry the nutrient blood."

Our author proceeds to prove that an anomalous action of the abdominal nerves, operates at a great distance, and exercises an influence in very different regions. From which he thinks it manifest that the functions of assimilation and nutrition are subjected to it. He looks to this for the explanation of those almost incredible cases of change of colour in the hair, from dark to gray in a few hours, of which there are numerous and well authenticated instances, produced by terror and dismay deeply affecting the nervous system; "the mental affection deranging the abdominal nerves, and these reacting upon the nutrition in the capillaries."

He considers the sympathetic nerves as entirely maintained to supply an influence to the capillaries; and that it may exaggerate, diminish, or destroy their action, but has no other authority over it. In proof of this he quotes at length the experiments of Dupuy upon horses, in which the superior cervical ganglia were cut away. M. Lobstein does not consider this as an objection to his inference, that in vegetables and in the most imperfect animals, which are either without nerves, or possess extremely few, the reproductive power is the greatest. Things cannot be compared so dissimilar. Having examined the function of nutrition in man, and cursorily in vegetables and the inferior animals, he passes on to the investigation of the secretions, and adds—

> "What I have said of nutrition in general, holds good in the secretion of the fluids, because the same mechanism supports secretion."

He says he has traced the nerves of this system in the trunk of the ductus choledochus, ureters and vasa deferentia (in a diseased testis,) and thinks there is no reason to doubt but that they are distributed to all excretory trunks and in their smaller branches, as he thinks the force and influence of these nerves is felt in the secretory vessels of the conglomerate glands—

> "This power consists in accelerating the circulation of the blood, and promoting the action of the secretory vessels."

The sensibility of glands, he thinks is proportioned to the relation between the mass of excretory ducts and the parenchyma, and he justifies his position by calling up in review, the larger glands, and Brodies' experiments upon the par vagum and sympathetic nerve.

"The sympathetic nerve," according to our author, "governs the action of the heart, and the circulation of the blood." He dissents from Soemmering and Behrends, in the belief that the remarkable nerves which attend the coronary arteries of the heart, appertain to the vessels, and believes that they terminate in the muscular substance of the heart, which has the same relation to them, as the voluntary muscles to the encephalo-spinal nerves.

> "We ought to acknowledge, (says our author,) a double property or function in the nerves which run to the muscles. Namely, 1st. That they continuously and in an uninterrupted course, impress upon the muscles, whatever may be their functions, the tone, strength, vital energy, animal characters and properties of nature; 2d. That they conduct a stimulus emanating from the cerebrum to the muscular fibre, which excites it to motion.
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> "The former evidently obtains in the heart, whilst it is supplied by the stimulus of blood in a natural state, or by mental affections or other diseases in a preternatural state; whence it follows, that the nerves in voluntary muscles perform a double, and in the involuntary muscles a simple function."

Our author next proceeds to the examination of the question, whether the branches of the intercostal nerve, which run to the voluntary muscles, as to the longi colli, antici majores, diaphragm, &c. have the same relation with them as the nerves from the brain and spinal marrow; he then investigates the phenomena occurring in paralytic limbs, and the experiments of Home, Wilson Philip, and Treviranus, upon the nerves;—

> "It clearly follows, (from the above he adds,) that the force and energy of the arteries do not depend upon their own irritability, but in the influx of a nervous principle."

The next proposition sustained by our author, is that—

> "The sympathetic nerve forms an admirable chain of connexion between the principal organs of the human body. Whatever arises or is perceived in one organ is reflected immediately to the rest."

The great influence of the sympathetic nerve is manifested in alimentation.

> "When the stomach is highly stimulated with aliment, the long tract of the intestines is forced into tension and motion, the liver and spleen grow turgid, the secretion of bile is promoted, the action of the urinary system is exalted, the kidneys determine to themselves the blood and fluids, and the urine passes off with greater celerity through their apparatus; and vice versa when one chylopoietic viscus is diseased another suffers."

Thus proving that the very sympathies that sustain life, may in particular circumstances be converted into the instruments of its demolition; the sympathetic action of the intercostal nerve, spreads over the whole body, "and connects the different parts in close union with itself."

The author next examines the sympathies which prevail in several diseases, which he satisfactorily accounts for by nervous anastomosis. He considers—

> "The anastomosis of the sympathetic nerve with the fifth pair to account for the gritting of the teeth, and itching of the nose, in the verminose diseases of children."

He considers the fascia communicans of Wrisberg, or the nervous loop between the par vagum and the semilunar ganglion, at the posterior part of the stomach, as the principal mode in which the connexion is maintained and sympathies exchanged, between animal and vegetative, or nutrient life. This connexion, which we believe is generally very little understood, he proposes to call the abdomino-cephalic anastomosis.

Our author differs in sentiment from Bichat, respecting the focus of organic life, which he considers in extent, and would not limit it to the gastric organs, but to the semilunar ganglia, or as he prefers to call them, the abdominal brain.

> "In whatever manner the abdominal nerves are irritated in mental affections," says our author, "a previous sensation in the brain is usually antecedent to the irritation. The mind is excited by the aid of the senses. Ideas arise in the common sensorium; these are perceived, whether grateful or disagreeable, and the impression spreads in the abdominal nerves, which neither perceive the ideas nor are capable of judging them. Hence an idiot, who leads a mere vegetable life, knows nothing of this internal sensation. His abdominal nervous system remains tranquil; he is only obnoxious to those mental affections which belong to the animal appetites, because in his encephalon, which is in other respects uncultivated and neglected by nature, that portion abounds from which the par vagum derives its origin, that illustrious point of the cerebrum, of high nobility and the greatest use, where the bond exists, (medulla oblongata,) which connects vegetative with animal life. From that portion of the cerebrum, determinations proceed to the abdominal ganglia, in the imbecile man, as in the quadruped. To that place the impressions revert which arise in the ganglia, or are transmitted to them from the viscera, whether they be sound or affected with disease." "The abdominal fascia, or the abdomino-cephalic anastomotic branch, is the only organ by which the descending or ascending impression proceeds and returns. We can follow filaments from the solar plexus with the scalpel and naked eye, into the right par vagum, or even into the brain itself."

Having reviewed the subject of animal magnetism, and some experiments made upon one of his medical friends, the author says—

> "I do not think these phenomena should, however, be rejected, which seem to declare the existence of occult powers in human nature; and it does not become a medical philosopher, in my opinion, to spurn phenomena, without previous investigation, and for the only reason that they are covered with obscurity, and do not square with received opinions, and vulgar notions."

By reference to the different functions and some of the diseases of the abdominal organs, M. Lobstein sustains the following assertion—

> "The sympathetic nerve, therefore, presides over all the actions which occur in the recesses of the abdominal organs; it imparts power, tone, strength, energy to these organs; excites their functions, sustains and directs them."

The author then attempts the explanation of the mechanism by which the functions of the sympathetic nerve are performed, a subject which he considers enveloped in great obscurity. He considers no theory yet promulgated, exactly suited to explain the action of the nervous system.

> "We believe, nevertheless," says he, "that the nerves are merely conductors of some very mobile, though material principle, which is secerned and evolved in their funicles by the arterial blood, in the act of nutrition, or chemico-vital process; but not that it emanates from any source, as the blood from the ventricles of the heart, although in the encephalon, medulla spinalis, and ganglia, it is produced in greater quantity, proportionate to the greater supply of vessels. The same principle, in the form of halitus or vapour, I suspect pervades the nervous filaments, and constitutes a peculiar imponderable gas, which cannot be assimilated to any fluid, either electric or magnetic, but forms a nervous atmosphere around the nerves and muscles, as has been proved from experiments by the illustrious Humboldt."

The reasons which induce M. Lobstein to admit a peculiar gas in the nerves, he deduces from the multifarious phenomena, occurring in the sound and diseased states of the body. Many of the obscure phenomena of the human body, which depend directly upon innervation, obtain from his hands an illustration extremely interesting and plausible. The following strikes us as being at least novel, and perhaps accounts as well as, if not better than, any other doctrine for the phenomena to which it alludes.

> "The gross and brawny states of the body, peculiar to certain men, are not always produced by the adipose matter with which the cellular tissue is filled, nor by the copiousness of blood; but by some subtle matter, filling and distending the parenchyma of the organs. Hence it may happen, that these men are speedily, and even in the space of twenty-four hours, emaciated, without the loss of any fluid or adeps. This likewise is the reason why infants and adolescents are more brawny than the old, because in them the impelling power which is produced from the energy of the nervous system, is more vigorous."

The flabby development of limbs, in cases where there has been general emaciation of the body, have I make no doubt often presented themselves to practitioners, where they could hardly imagine any disease of the cellular tissue.

After treating of inflammation, and the peculiar influence of the arterial nerves over the vessels in that state—of animal miasm which he believes is secreted by the nerves and hence has a peculiar affinity to that system—of the particular opinions of Harvey, Glisson, Wilson, Treviranus, Rosa, &c. our author adds a theory of inflammation that he has adopted, for all acute and febrile diseases.

> "Can one believe," says he, "in acute phlogosis, that the mass of fluids is augmented, and the store of blood suddenly increased?"
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> "The blood, which receives no addition from the focus of nutrition, is dilated, expanded, acquires a greater capacity, from the nervous principle interposed between its globules; intestinal and livelier emotions are excited in it; a latent fire as it were sustains them, which I may compare to the motions produced in boiling water."

Having pointed out the effects of chill and its reacting fever upon the organs, he proceeds—

> "The whole of this state, in my opinion, depends upon a nervous plethora; viz. a nervous gas collected and accumulated in the nervous filaments, and from thence making an irruption into the parenchyma of the organs, and into the fluids themselves, until they flow out in the given channels, to the great relief of the sick." "When, for instance, we open a vein in inflammatory diseases, there are very frequently drowsy symptoms, and the anomalous actions are suddenly returned to a more placid tenor; for this reason, chiefly, that with the loss of blood the principle is detracted which forced it, as it were, into an effervescent motion, and because a double spoliation is produced by the single venesection: viz. nervous and sanguineous."

Our author next proceeds to examine the phenomena in malignant and miliary fevers, and various idiopathic affections of the nerves, belonging to the class of spasms; as hypochondria, hysteria, angina pectoris, nervous apoplexy, &c. He says—

> "I receive it as fixed in the onset of these latter diseases, that the nervous pulp is saturated with the subtle principle it bears, which when speedily added to the secreted fluids, escapes from the body with the recovery of the patient, or with his destruction if the nervous vapour be mingled with the blood. Every one knows that the paroxysms of hypochondria, hysteria, angina pectoris, &c. are dissolved by a copious eructation of flatus, whilst in the species of apoplexy referred to, aerial bubbles have been found enclosed in the encephalic vessels."

The transition from physiological to pathological study is natural and easy, for even in the present enlightened state of medicine, it is hard to determine where the sphere of the former terminates, or the latter begins. Many medical philosophers of the present day, some of whom we find among our own practitioners, have laboured not only to improve the science of physiology, but also to teach the importance of a knowledge of its laws in the investigations and cure of diseases. What is more rational in diagnosis, than to examine the central changes upon which the centrifugal symptoms of disease depend, or what more useful in practice than to ask from each accessible organ, an account of its own condition and the interpretation of the symptoms of its associates.

Tissot has said, that nine-tenths of the diseases of the human system originate in the abdomen. And after the perusal of M. Lobstein's views one could hardly hesitate to believe, but that the sympathetic chain of nerves which spreads normal impressions from organ to organ, would likewise extend the ravages of disease. We might almost call the first stadia of disease, if it did not involve a paradox, physiological, as the change is generally but the mere exaggeration of vitality.

In the present state of physiology and pathology, the number of those diseases which formerly appeared to practitioners singular and unaccountable is rapidly diminishing. The term nervous, which has been so long applied as a mask for imperfectly known diseases, is now becoming securely fixed to certain symptoms which follow in intelligible order particular pathological changes. This department of pathology is yet open for much improvement.

There is scarcely a disease originating in the abdomen, in which the system of vegetative life is not extensively concerned in its office of sympathetic distribution.

Our author, after some prefatory remarks, commences his pathological section with the consideration of hypochondria, which he considers as clearly exhibiting a spastic character, and a neuropathic state of the ganglionic system. Of this disease, as well as hysteria, he gives us an accurate analysis, and as it is concise, we are induced to insert it.

> "*Hypochondria,* slowly advancing under continued and concealed disquietude of mind, with grief, and the silent anguish of sadness, at length bursts out in spastic symptoms with fallacious vehemence. All the mutations of this disease, certainly demonstrate clearly a spastic disposition, and a neuralgic state of the ganglionic system. The remarkable sensation of pressure in the præcordia, after taking food; difficult digestion of aliments, with concomitant flatus; anxiety without any difficulty of respiration, palpitations of the heart, vertigo, tremors of the joints, &c. can only have their seat in the diseased nerves of the abdominal viscera. The vital action of the gastric organs, from which no disagreeable sensation arises, and no idea is excited in the natural state, now affects the brain in an unusual manner, to which the mind confides, and misjudges those impressions which are produced, according to the vital process in the abdomen. Hence it is, that impressions, carried by the nervous ramifications from the interior of the abdomen, excite sudden alarms; the dread of apoplexy or other grave diseases, whilst the individual is, indeed, far removed from every danger.
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> "The derangements of the abdominal nervous system, and its irruption into

the cerebral sphere, sometimes produce such changes in the constitution of the mind, that in the various phantasies the series of reflections become much impaired; symptomatic amentia, and true delirium arise, which vanish again with the returning energy of the mind. The mind is very frequently hurried into various movements, so that now it will be poured out by the lightest influence, in scornful laughter, and quickly return again to sadness and tears from the simplest cause.

"*The hysterical disease* which I believe is utterly different from hypochondria, declares an affection of the uterine nervous system, which draws into consent with it the nerves of the epigastric organs, and especially the lungs, so that dyspnœa and constant constriction of the trachea are morbid symptoms. It passes likewise vividly into the dominion of the brain; and the exaggerated power of the sympathetic nerve, begets strange mental aberrations, and produces actions seemingly spontaneous, but absolutely uninfluenced by the will.

"Patients frequently feel lighter spasms, commencing in the abdominal region, to be propagated by degrees through the breast, where they produce a sense of vibration and oscillation of the integuments and muscles of the head and face; excite intolerable pains, which occupy by turns the synciput and occiput, in some a half and in others the whole head; sometimes they are fixed in a small place, which may be covered with the ball of the thumb, with an incessant sense of cold, and yield to no remedies but those that remove the derangement in the abdomen, and obtund the excessive sensibility of the viscera. Hence, those which were before the most violent, we find become immediately mitigated by a single eructation, and have the pains removed in a few moments by a few drops of laudanum or a few grains of castor.

"In our clinical institute, we carefully observed a young girl for many months, in whom we were able daily to follow and admire the course which this disease instituted in the various branches of the nervous system. At first there were spasms in the inferior part of the abdomen, then pain and inflation of the epigastrium, with a sense of anxiety and attempts at vomiting; afterwards constriction of the lungs, dry cough, palpitation of the heart; then endeavours at deglutition, as if pellets of food, which the patient wished to swallow, stuck in the pharynx; and at length perfect aphonia. More than twenty times this series of symptoms so attacked the patient, that each day there appeared another phenomenon, and as often the disease seemed to have migrated into another portion of the nerves. For it originated in the hypogastric plexus, from thence it removed into the gastric and solar plexuses, from thence into the pulmonary and cardiac plexuses, from these into the nerves of the pharynx, and ultimately into the laryngeal and recurrent nerves. The morbid affection afterwards descended into the organs of the pelvis, with a retrograde movement, in the same order in which it arose, to be quickly again repeated in the former course.

"The seat of melancholy and maniæ, by the almost unanimous consent of physicians, is concealed in the lower viscera. What was formerly ascribed to obstructions of the viscera, and principally of the spleen, and to infarctions of the vessels, is referred at this day with more reason, to an altered condition of the nerves. Neither do vapours ascend into the head, nor is atra bilis concerned in these diseases; but the solar plexus, or abdominal brain, reacts in such a manner upon the cephalic brain, that its temper is manifestly changed. This wonderful connexion, or rather antagonism of the brain with the abdominal nervous system is proved in the physiological section of this treatise, where it was discussed. What demonstrates this communion most clearly, is the cure of these diseases by medicaments which irritate the nerves of the abdomen. The wonderful power of emetics, when producing nausea only, substantiates this, the happy use of which is proved by experience in diseases of the mind. These medicaments never act by resolving or evacuating the sordes and saburral matter; but as efficacious irritants to the gastric nerves, applied afterwards to the solar plexus, by which another mode of action is excited in these nerves; or at least through its intimate connexion with the brain, the disorder of the latter is counteracted and drawn to the abdomen.

Saturnine colic, our author says, presents no symptom which cannot be explained by the affection of the nerves.

The various spasmodic paroxysms, he considers as susceptible of derivation from irritated nerves. Such as tussis convulsiva, (hooping cough,) angina pectoris, and incubus. Upon these diseases, the author details his opinions, as extensively as the plan he has adopted will admit, and, in our opinion, with great perspicuity, so as to decide the nature of these hitherto almost inscrutable diseases, and consequently to assist us in practice. Angina pectoris, (inconstant arthritic asthma, sternocardia, or syncope anginosa,) he considers to consist essentially in an affection of the cardiac, and perhaps pulmonary nerves. Having considered its symptoms, causes, frequent termination in copious eructation of flatus, and the osseous incrustations about the origin of the vessels, and in the heart itself, he remarks that these phenomena, (ossifications,) are effects only, and not the cause of the disease, as they occur in individuals who have never suffered with it. When, indeed, ossifications do occur in this disease, we may clearly see their pathogeny, if we recall to mind the jurisdiction which the nerves exercise over the vessels to which belong the functions of nutrition; for the nervous filaments act upon the capillary texture, and elevate its functions, when the latter acts beyond its normal standard, and produces a peculiar substance, (phosphate of lime,) contiguous to the texture of those portions of the heart.

M. Lobstein does not think that the remote cause of the disease is always placed in the arthritic principle, and cannot conceive why we should deny the existence of other pernicious powers, endowed with the faculty of vellicating the cardiac nerves. He quotes also the opinion of Winchman, "that there were no symptoms of arthritis perceptible in the cases of angina pectoris he examined."

Miliary fever, latent arthritis, and intermittent fever receive successively the illustrations of the author. On the subject of the latter we will quote a few remarks, as we believe any attempt to improve the principles, by which we practise in this disease, will be received with good will. He thinks its nature should be sought for in the disorder and perverted action of the abdominal nerves; and adduces arguments under six heads to support his opinion; we will insert the two last—

> "When the disease is either left to itself or maltreated, congestions are produced in the abdominal viscera; induration of the liver, intumescence of the spleen, &c. and the general morbid state, is changed into a topical affection. This metastasis appears to me to indicate that the morbid action abounds at first in all the plexuses, and afterwards migrates from one into another. For it is at first apparently disseminated in the whole territory of the ganglionic system, before it runs with much impetus into a single plexus, which is commonly the splenic: and as the vessels are under the influence of the nerves, it cannot be otherwise but that there should be produced a congestion in the vessels." "Intermittent fevers are tied down to a regular rythm, because they are located in the nervous system, upon which nature has impressed a law, by which the functions are performed periodically."

Each nervous system, he proceeds to state, is liable to its own diseases; which attack in the same manner, the encephalo-spinal nerves, and the abdominal plexuses, and ganglia. As there are many disorders which he traces out, as epilepsy, tetanus, &c. that leave no vestiges in the former system; so we must expect to find it in the thoracic and abdominal viscera.

> "It has been long taught that sudden deaths invade the body in three different ways: by the cerebrum, heart, and lungs, and I add a fourth, the solar plexus, the source and centre of the abdominal nerves; a plexus, which by a sudden commotion, vellication or any grave derangement whatever, is affected with paralysis followed by speedy death."

Our author then proceeds to the enumeration of facts, and phenomena, to bear him out in his opinion, and gives the name of abdominal paralysis, or apoplexy, to the effects produced by sudden and fatal retrocession of miliary exanthematas. He then examines elaborately, the sympathetic diseases, whose source is in the abdomen, and accounts for the catenation of symptoms they give rise to, by the situation and anastomosis of different nerves: as the phenomena produced by hypochondria and hysteria, cephalalgia hemicrania, vertigo, verminose affections, some soporose affections, sympathetic delirium, vigilance, and various affections of the eyes, nares teeth, and joints.

He thinks that experience in delirium, has confirmed the saying of Tissot, that in twenty cases of this disease, either acute or chronic, eighteen arise from the hypochondria. Under the head of vigilance, he says—

> "I have noticed in general, that there exists diseases and certain states of life, where the ganglionic system, which is unusually excited, and, if I be allowed the expression, morbidly vigilant, overwhelms the cerebral system, acts upon the encephalon like the external senses, and prevents it though fatigued, from obtaining repose. I have seen some patients, who though just fallen asleep, were suddenly awakened and dismayed by a powerful and apparently electrical shock from the epigastrium: a cruel phenomenon, which endured for many months."

From the modus medendi in these diseases, he considers it also proved that the primitive cause exists in the abdominal viscera, not so much in the organs themselves as in the nerves, which give them their tone and energy: thus purgatives remove the

> "Corrupt matter adhering to the intestines and irritating their nerves, which is very often the only cause of dilitation of the pupil, amblyopia, nyctalopia, hemeralopia, and amaurosis."

All the distressing symptoms which accompany some epidemic fevers, such as anxiety, jactitation, dyspnœa, and great prostration may occasionally be entirely removed by a single emetic, a fact at which Van Swieten, Sydenham, &c. have expressed their surprise.

We shall be obliged to pass over now a very interesting portion of the work, and notice one paragraph upon the depressing affections."

> "Grief, melancholy and mental afflictions, which depress the vital power, and are for that reason called sedative, change the condition of the abdominal nerves. Spasms are then produced which disturb the action of the vessels, thence necessarily follows a stasis of fluids in the capillaries, from the retarded motion of the blood, and then infarction of the vessels, obstruction of the viscera, and genuine organic diseases."

And here follows an enumeration of diseases which occur from this cause.

Treating of the influence that lesions of the brain exercise over the liver, the author goes on to determine the mode of transmission, which he thinks—

> "Depends upon the communion of the right par vagum, with the solar plexus, in which the cerebrum is connected to the right semilunar ganglion, from which emanate directly the posterior hepatic nerves.

M. Lobstein says "he has been convinced by the attentive observation of disease, that spastic symptoms always, and for a considerable time precede organic alteration;" and he refers to diseases of the heart, lungs, and abdomen, which he treats at some length, in order to prove his position. Of the first he says, "The heart palpitates for a long time, and suffers tremors and nervous oscillations before it is affected with dilatation." Of the second, among other things he says, "I have likewise seen forms of phthisis that offered nothing in their incipiency but symptoms of abdominal neurosis, viz. hypochondriacal paroxysms, dyspepsia and tympanitic condition of the hypochondria." The change of these symptoms to those of organic lesion of the lung, was abrupt and sudden. "I have seen a girl destroyed by pulmonary phthisis, whose disease had begun with a pain in the knees, which passed off in gastric oppression and anorexia." We all know the extreme uncertainty that exists in investigating the chronic diseases of the lungs, particularly without the aid of the stethoscope, and it becomes highly important that the proteiform nervous symptoms which sometimes present themselves in pulmonary phthisis should be well understood.

> "The symptoms more or less grave which constitute in the first place a lesion of the stomach, intestines, liver, spleen, &c. are in general nothing but dynamic spasms (insultus) of the nerves, which clearly prove that there is a certain preternatural grade, or labour of action, if I may be allowed the term, by whose intervention the organic disease is perfected."
>
> "No disease of the abdomen occurs, (lesions of the peritoneum not excepted,) in which there is not observed a troublesome, and frequent evolution of gas. This is always falsely ascribed to indigestion of the food, hysteria, &c. &c. but most generally the evolution of flatus proves the distemper of the nervous system, and the incubation of future organic disease." "In nearly all diseases, dynamic or organic, jactitation, anxiety, præcordial tension, dread of death, &c. in the sick, give me the greatest alarm, because these phenomena, (when they do not depend on hypochondria or hysteria,) indicate the gravest affection of the sympathetic nerve."

M. Lobstein investigates the subject of pathological changes in the sympathetic nerve itself, and thinks that if the attention of pathologists was carefully directed to it, much important matter might be added to what he details. Whilst the anatomists of all civilized countries, have concentrated the greatest attention upon encephalic pathology, the important morbid changes in the regulating system of organic life have been very much neglected. We are glad to learn, that Professor Horner, whose great opportunities for observation, and sound judgment, fit him singularly well to obtain the confidence of the profession, and to extend the debt which it already owes him in pathology, intends to devote some attention to this subject. It is to this system of nerves that we must look for those remarkable symptoms of disease, which have been noticed for ages, or put aside under the vague appellations of nervous, or gouty, as being too mysterious to be understood. M. Lobstein gives the history and dissection of some extremely interesting cases of inflammation of the different parts of this system, too long for insertion here, and which will not admit of abbreviation. In one case of inflammation of the semilunar ganglia, the chronic form which had produced for a long time a great many anomalous and distressing symptoms, was speedily elevated to the acute state by pregnancy, which destroyed the individual.

> "I dissected the body of a girl of six years, who had been seized with epidemic pertussis, which was at first changed by metastasis, into spasmodic vomiting for three days, and at last degenerated into incurable clonic convulsions. I found the whole left part of the solar plexus, in this girl, inflamed, whilst the right appeared in its natural state.
>
> "I sought in vain the causes of these convulsions in the encephalon, since they were without a doubt entirely symptomatic, and produced by the morbid reaction of the solar plexus upon the brain."

He details also a case of pertussis from Autenreith, in which the par vagum was inflamed in all its course through the thorax: the cardiac and sympathetic nerves had also undergone some alteration.

He gives two cases of inflammation of the semilunar ganglia, which he had received.

In the body of a boy ten years of age, who was afflicted with anxious oppressions of the breast, and swellings of the epigastrium from the retrocession of miliary eruption, he says—

> "I found a place highly inflamed in the left trunk of the intercostal nerve, between the eighth and tenth ribs, with a phlogosis of the ninth and tenth thoracic ganglia, and their two anastomotic branches from the costal nerves."

M. Lobstein next examines the state of the nerves in various diseases of the lungs, and particularly in that form of peripneumony in which the lungs are affected with a red softish induration, which he would call splenification or red broncho-puriform congestion. Under the head of aneurism of the aorta, he details at length the history and dissection of an extremely interesting case, in which the phrenic and pneumogastric nerves were compressed between the pseudo-membranes on the exterior of the aneurism. This disease was first considered hydropneumonia, then congestion of the lungs, and at length a disease of the heart and larger vessels. Antispasmodics aggravated the affection, and venesection gave temporary relief. The principal cardiac nerves were deficient in this case. He supposes part of the extraordinary symptoms which arose in one of his cases of aneurism of the heart, to have arisen from the anterior coronary plexus of nerves, being thrown around an osseous scale.

> "The inflammation peculiar to nerves differs from that which seems only

communicated to them by the phlogosis of neighbouring parts; for in this case the redness is less intense, and disappears on steeping them in water."

To provide against mistake, our author examined the thoracic ganglia in a case of pleurisy, which though covered with a red vascular net-work, were not altered in the centre, and lost all their redness by immersion in water.

M. Lobstein asserts that the branches of the sympathetic nerve may be thickened in various diseases, and adduces cases in proof; and also that they are increased in number in certain others, as in cases of hydrosarcocele, and enlarged thyroid gland, which he details, and in which he thinks the great care he used, with the aid of the microscope, prevented his mistaking lymphatic vessels for nerves.

On the contrary, he has also observed instances which he narrates, where the number of nerves was greatly diminished.

Where the organs undergo great changes, are increased or diminished in size, there must be some correspondent physiological state; viz. the nerves be more or less numerous, and with more or less vital power or functional energy. Cases in which the nerves have existed unhurt, in gangrenous ulcers, &c. and others, particularly in cold, steatomatous tumours, &c. in which he has found them destroyed, next receive some attention. M. Lobstein has discovered "several small tubercles upon the semilunar ganglia, of a yellow violaceous colour in several bodies." The microscope showed no lymphatic vessel arising from them. In one case the patient died of saturnine colic, and in another of scirrhous of the stomach.

One case is detailed in which the par vagum was separated in two by a tumour, which was immediately followed by cardialgia, and severe pains in the back and interscapular region, tormina and constipation, which destroyed the man in seven weeks. Not a symptom of disorder existed till the nerve was separated.

After a few remarks upon the diseases of this nerve in the fœtus, and one in particular which he calls from the golden colour it gives the ganglia, *χιρρονοσος*, our author concludes his work with the following observations:—

> "From all that has hitherto been preferred, it follows, that the nerve whose structure and use we have undertaken to illustrate, composes firstly, a peculiar system in the animal economy, not produced from the brain or spinal marrow, though it communicates with them in a multiplicity of ways; secondly, that it is prefixed to certain and definite functions; thirdly, that it may not only be affected in its force and power so as to produce dynamic diseases, but that it also exhibits alterations in its structure perceptible to the senses. If the industry of anatomists be directed towards them, it cannot fail to supply us with more complete information respecting the pathology of the human sympathetic nerve."

J. P.

Art. XIX. *A Treatise on Neuralgic diseases, dependent upon Irritation of the Spinal Marrow and Ganglia of the Sympathetic Nerve.* By Thomas Pridgin Teale, Member of the Royal College of Surgeons in London, of the Royal Medical Society of Edinburgh, Senior Physician to the Leeds Public Dispensary, &c. London, 1829, pp. 120, 8vo.

THE term neuralgia has until very lately been exclusively used in its strict signification, to designate certain affections of the nerves attended with severe pain; but recent writers have urged, that it may with great propriety be extended to other morbid states of the nervous systems not characterized by pain or extreme suffering. Among this number is the author of the treatise under consideration, a sensible and well written essay, containing more fact and observation in a small compass than are generally presented to us in this book-making age. We shall endeavour to present a condensed view of his ideas on the derangements of the nervous system arising from irritation of the spinal marrow and ganglia of the sympathetic nerve, but to use his own words, as applied to Dr. Darwall, "to be fully appreciated, his essay must be read entire." He describes the various phenomena exhibited by the spinal nerves under the head of "Irritation of the Spinal Marrow," and the several affections of the organs, which derive their nerves from the sympathetic system, under "Irritation of the Ganglia of the Sympathetic."

Irritation of the Spinal Marrow.—This may exist in a multitude of different forms, from the slightest deviation from healthy sensibility of any part, to the most painful neuralgic affections on the one hand, and to complete numbness, or loss of feeling on the other. These symptoms sometimes exist in so slight a degree as to be overlooked or disregarded by the patient; or the only complaint he may make, is of an unaccountable sense of weakness and inability of exertion. In other cases, on the contrary, the various symptoms have created alarm at an early period. It is an affection which is often of a very protracted duration, varying in intensity according to the state of the constitution and different exciting causes.

"In this complaint, tenderness in the portion of the vertebral column, which corresponds to the origin of the affected nerves, is generally in a striking and unequivocal manner evinced by pressure. In some instances the tenderness is so great that even slight pressure can scarcely be borne, and will often cause pain to strike from the spine to the seat of the spasm or neuralgia."

Though it may exist throughout the whole extent of the spinal marrow, these cases are comparatively rare; it is most frequently confined to some particular portion, and even may occur in separate and distant portions at the same time. The symptoms vary considerably, according to the part of the spine which is diseased; thus, if the upper cervical portion be affected, neuralgic attacks of the scalp are frequent. These attacks often assume an intermittent form, the paroxysm usually taking place in the evening. A disease of this part of the spinal marrow may also affect the voice; this circumstance has been noticed by PORTAL, who states, that difficulty of speaking and swallowing may frequently arise from an "engorgement" of the cervical portion of the spinal marrow.

When the lower part of the cervical portion of the spinal marrow is affected, it gives rise to a morbid state of the nerves of the upper extremities, shoulders, and integuments at the upper part of the thorax. Mr. Teale observes that he has found that these morbid pains and feelings are more frequent and severe on the left, than on the right side. Females of sedentary habits are peculiarly liable to this form of the disease.

When the upper dorsal portion is in an irritated state, in addition to other morbid sensations

> "There is often a fixed pain in some part of the intercostal muscles, to which the name of pleurodynia has been assigned; and when this pain has existed a long time, there is tenderness on pressing the part. When the lower dorsal half of the spinal marrow is the seat of this irritation, or sub-acute inflammation, the pleurodynia, when it exists, is felt in the lower intercostal muscles; frequently there is also a sensation of a cord tied round the waist, an oppressive sense of tightness across the epigastrium, and lower sternal region; and soreness along the cartilages of the lower ribs, or in the course or insertion of the diaphragm; various pains, fixed and fugitive, are also felt in the parietes of the abdomen, throughout any part of the abdominal and lumbar muscles; the pain is frequently fixed in some portion of the rectus muscle, and not unfrequently in the oblique muscles or transversalis, a little above the crest of the ilium, particularly when the origin of two or three of the lowest dorsal nerves is diseased."

If the lumbar and sacral parts of the spinal marrow are affected, there is often a soreness of the scrotum, and the lower extremities are the seat of various morbid sensations, spasms, and tremors; the patients also complaining of a feeling of insecurity or instability in walking.

This irritation, observes Mr. Teale, is not necessarily connected with any deformity of the spine, or disease in the vertebræ, although they may exist at the same time, and the former may be alleviated by the treatment for the latter, long before any impression is made on the vertebral complaint. He also states, that from his observations, those affections of the spine, termed lateral curvature, and excurvation, do not appear to predispose to the disease under consideration.

Treatment.—When the symptoms above-mentioned can be traced to a morbid state of some portion of the spinal cord, the treatment is obvious.

> "Local depletion by leeches or cupping, and counter-irritation by blisters to the affected part of the spine, are the principal remedies. A great number of cases will frequently yield to the single application of any of these means."

Mr. Teale states that he has seen cases which have existed for months perfectly relieved by the mere application of a blister to the spine, even where the local pains had been unsuccessfully treated by a variety of remedies for a long time. A repetition of these measures, however, is often required after the lapse of a few days, and the plan is to be pursued for a considerable length of time where relief is not obtained. In some cases setons and issues are necessary: cures have also been effected by means of a slight mercurial course. Would not the application of the emplas. tart. ant., so as to produce a pustular eruption, be of service in these cases? It appears to be a remedy peculiarly fitted to this class of complaints, and it would in all probability supersede the necessity of resorting to setons and issues.

Attention must of course be paid to the state of the bowels, and to the treatment of any other affection that may exist. Recumbency much accelerates recovery, but Mr. Teale states that it is by no means necessary, as he has seen many cases where the disease yielded to the other means of treatment, whilst the individuals pursued their usual avocations.

Where there is a tendency to relapse, it is useful to make use of some stimulating liniment to the spine for a few weeks.

Mr. Teale gives many interesting cases illustrative of his plan of treatment, and we will insert one of them in which the upper extremities and thoracic parietes were attacked.

> "December 10th, Mrs. B. æt. 53, mother of a large family, represents herself as having been severely afflicted with rheumatism during the greater part of her life. She now suffers from pain in the neck and head; pains about the clavicles; difficulty in moving the arms, which feel fixed at the shoulder-joints. The pain in the neck and between the shoulders, is fixed and constant, being nearly the same both day and night; it is a little alleviated by supporting the back against a chair. There are also darting pains extending from the cervical

portion of the spine upwards over the occiput, and downwards across the neck and over each shoulder. Both arms are affected with aching pains over their whole extent, and with a sense of soreness on pressing or rubbing the skin; prickling sensations; cramps or numbness in the forearms, hands, and fingers; difficulty in moving the arms, and in using her fingers in sewing or knitting; frequent, sudden 'twitching' pains in the neck, arms, and trunk; occasional pains in the abdominal muscles, relieved by recumbency; no affection of the lower extremities; appetite poor; no cough or difficulty of breathing; catamenia ceased about six years ago.

"Has used a great variety of remedies employed in rheumatism, but without benefit; tenderness in the two lower cervical and six upper dorsal vertebræ.

"Leeches applied to the tender portion, and on the following evening a blister to the same part.

"The blister produced an unusual degree of inflammation in the skin, which continued for several days, and was accompanied with considerable fever. During the febrile state the neuralgic symptoms were rather aggravated, but as the fever subsided, they gradually disappeared. On the 29th, I took leave of her, as she was then perfectly well; she had occasional returns of pain during the winter, which were soon relieved by leeches and the use of turpentine liniment."

Irritation of the Ganglia of the Sympathetic Nerve.—These ganglia appear to be subject to diseased states very analogous to those of the spinal marrow, but are seldom found in a morbid state, except in conjunction with that of the corresponding portion of the spinal cord, though the latter is often affected without the ganglia being implicated.

When these ganglia are in an irritated condition, the organs which derive their nerves from this source become morbidly affected in their functions. The involuntary muscles have their action altered by spasms and irregular contractions. The heart is subject to palpitations, and the large vessels to strong and irregular pulsations, whilst the muscles of the bronchiæ are affected spasmodically, so as to constitute a genuine asthma, independent of any inflammation of the part. The stomach and bowels are also liable to spasms and other deviations from their natural operations. This diseased state of the ganglia likewise alters the sensibility of these organs. Thus the heart and lungs are attacked by morbid pains, resembling those termed "tic douloureux." The stomach and bowels become liable to similar neuralgiæ, known under the names of gastrodynia and enterodynia. These pains may also occur in the kidneys, bladder, and uterus. But the most remarkable circumstances attending these complaints are the modes in which the secretions become altered.

"This is exemplified by the enormous secretions of air which sometimes occur in the stomach. Large quantities of clear, transparent liquid are also secreted by this organ, constituting what is called pyrosis. The secretions of the stomach undergo variation in their qualities, rendering them unfit for the digestive process. It is probable that the secretion of the liver also experiences some alteration in these complaints. The urine is sometimes influenced, and I am inclined to suspect that some forms of diabetes partake of a neuralgic character. Leucorrhœa is frequently a concomitant of these diseases, and ceases on their removal; but I am not prepared to say that it is ever symptomatic of them."

Mr. Teale is of opinion that the middle and lower thoracic ganglia are the most liable to this disease, causing affections of the stomach and bowels, that the next in frequency are the cervical, producing painful and spasmodic states of the heart. These complaints are generally accompanied with irritability of temper and depression of spirits, especially when the stomach is implicated. This disease, like that of the spinal marrow, is not necessarily connected with caries of the vertebræ, or distortion of the spine; it may, however, coexist with them.

There is almost in all cases, tenderness of the spine to a greater or less degree, and the tender portion invariably corresponds with the symptoms. Thus if the heart be affected, the tenderness is in the cervical vertebræ, and when the stomach is the seat of suffering, the lower or middle dorsal will be found painful on pressure.

The treatment is the same as has been recommended when speaking of irritation of the spinal marrow. Most writers have advised internal remedies as adjuvants or palliatives, such as quinine, iron, and other tonics, where there is an intermittent state; digitalis and prussic acid where the heart and blood-vessels are affected, &c. Mr. Teale is, however, of opinion that they are seldom necessary, and where they are alone relied upon, that they usually fail, even in procuring temporary relief. External applications, as leeches and blisters to the seat of the pain are of still less efficacy, and only serve to torture a patient, without affording him the slightest benefit.

To illustrate more fully the different affections of these ganglia, Mr. Teale treats of neuralgia of the stomach and heart in detail.

Neuralgia of the Heart.—There is no diseased action we hear more commonly complained of, than unnatural and distressing palpitations of the heart. All ages, and both sexes appear to be equally subject to it. This disease at first, only makes its appearance in a slight form, and at distant periods; but as the complaint advances, the paroxysms become more frequent and of longer duration, till at last this morbid and irregular action is seldom or never suspended by a natural state. These palpitations are often attended with other symptoms, as pains in the heart and lungs, somewhat resembling those of rheumatism. They may also be seated in the upper part of the aorta, or in the course of the carotids and subclavians. They are likewise, in the generality of cases, accompanied by the symptoms resulting from a diseased condition of the cervical vertebræ, to which we have already adverted. These pains are most frequent and intense on the left side of the body, and form a prominent feature in the account the patient gives of his complaints.

Mr. Teale remarks that—

> "Palpitations purely nervous are principally distinguished from palpitations dependent upon organic disease of the heart, by the absence of other symptoms which denote a change of structure in that organ; in hypertrophy, the pulsations of the heart are more vehement and uniform; in dilatation, they are felt over an unnatural extent of the chest; when there is obstruction to the circulation from contracted orifices, from loss of function in the valves, or from morbid alterations of the muscular structure, there are generally, in a greater or less degree, blueness, œdema, &c."

Laennec gives some important distinctions as afforded by the stethoscope, which should always be attended to in drawing a diagnosis; the most important of them, in his opinion, is that the shock, although apparently strong at first, has in reality but little impulse, for it does not sensibly move the head of the observer.

This nervous state may, however, exist in conjunction with organic disease, and is a frequent cause of the paroxysmal exacerbations in disorders of the heart. There appears to be much diversity of opinion, whether nervous affections of the heart predispose to or excite organic disease of that part. Mr. Teale observes that he is unable to speak decidedly on the subject, and Laennec appears to be equally uncertain, although he inclines to the opinion that they do not.

The treatment of these affections has been empirical in the extreme; remedy after remedy has been lauded and then abandoned, until the whole materia medica has been exhausted, without affording relief; and even in some cases have evidently aggravated the complaint. If Mr. Teale's statements be correct, and we feel no doubt of their truth, the plan he has laid down of treating the disease by applications to the cervical portion of the spine, presents a well-grounded hope that we may in a majority of cases effect a cure, or at least a great alleviation of these distressing diseases.

Neuralgia of the Stomach.—Under this head our author classes a variety of diseases, which have been termed dyspepsia, &c and which are not benefited by any remedies applied to the seat of the complaint, and even in some cases are manifestly aggravated by them. Many of these cases, says he—

"Which had resisted the usual modes of treatment, I have since found to be connected with tenderness on pressing some of the middle or lower dorsal vertebræ, and on removing the tenderness in the spine and neighbouring parts by proper remedies, the stomach affection and attendant symptoms have been almost immediately removed."

The principal symptoms in addition to this tenderness of the spine, are indigestion, or simple impaired digestive power, with its concomitant attendants, acidity, flatulence, &c.; pain in the stomach, either general or circumscribed, oftentimes attended with that peculiar feeling so commonly complained of by dyspeptic patients; a sense of faintness, or sinking sensation at the epigastrium.

The most marked and constant attendant on disease of these ganglia is flatulence. It differs from that produced from the decomposition of aliment so common in all disorders of the stomach, by its rapid and copious formation; it appears to be a secretion of air. The stomach is sometimes instantaneously distended with air to a great degree, even when there appears to be no cause for its production. At other times it occurs more slowly, continuing for hours, or even days. Mr. Teale mentions a very remarkable fact connected with this symptom—that pressure on the painful vertebræ will in some instances cause a sudden extrication of the gas.

This complaint may also be accompanied by pyrosis, and pulsation at the epigastrium. The former of these, Mr. Teale thinks, is always attributable to morbid affections of the ganglia, and never produced by inflammation of the mucous coat of the stomach. We are afraid the author has here permitted his opinions to carry him too far; that pyrosis may be produced by a diseased condition of the ganglia is very probable, but that it may also arise from a morbid state of the stomach we feel convinced. We know that it may be relieved and cured by internal remedies which would scarcely take place if it depended solely and entirely on a morbid state of the ganglia.

These nervous affections sometimes accompany other diseases, and an attention to them will alleviate the patient to a very great degree. Thus, in phthisis, pains in the intercostal muscles, and oppression of respiration, are often of a neuralgic character, and may be readily mitigated. Hepatitis is often accompanied with a sense of constriction across the epigastrium, and pain or tenderness along the cartilages of the ribs; this has in some cases been treated as a disease of the liver, even where this viscus has been in a normal state. Neuralgic affections of the scalp, connected with tenderness in the cervical vertebræ, often occur in fever, and are mistaken for pain of the encephalon.

These circumstances, says our author, point out the important fact, that irritation of the capillary expansions of nerves may sometimes excite actual disease in the parts where the nerves originate.

Mr. Teale now gives his views of the physiological and pathological facts connected with these complaints; these are drawn more from reasoning, and the authority of other writers, than from actual observations: he appears to have been so lucky in the plan of treatment he proposes, as to have had but few opportunities of following up his investigations on the dead body.

This investigation is divided into three heads:—

> "1st. Is the muscular action of the heart, arteries, stomach, and intestines, dependent upon the cerebro-spinal, or upon the sympathetic system?
>
> "2d. Are painful affections of the heart, lungs, stomach, and intestines, seated in the filaments of the pneumogastric, or of the sympathetic nerves?
>
> "3d. Is the pneumogastric nerve the only nervous agent in digestion, or do the nerves of the sympathetic system exert any considerable influence in the digestive process?"

The first of these inquiries has been most satisfactorily settled by the labours of WILSON PHILIP, LE GALLOIS, and more especially by LOBSTEIN, in his excellent treatise on the sympathetic. The subject is, however, of so interesting a nature, and has thrown so much light on the pathology of these organs, that we shall follow Mr. Teale in his sketch of the grounds upon which the fact of the great agency of the sympathetic is established.

HALLER first ascertained by experiment that the heart was capable of acting after the brain had been destroyed. This fact was also proved from the circumstance of so many acephalous fœtuses reaching their full time, and of course in whom the heart and arteries must have been for some months in continued action.

Dr. Wilson Philip proved that the cervical portion of the spinal marrow, the whole of the spinal cord itself, and even the brain, could be destroyed without stopping the action of the circulatory system, provided artificial respiration be maintained. Le Gallois obtained the same results, and they have since been corroborated by Mr. CLIFT.

These experimenters also proved that the capillary or secreting vessels are equally independent of the brain and spinal marrow; the muscular action of the stomach and intestines also appears to be capable of existing unconnected with cerebro-spinal influence. Indeed, from all the facts we possess, it is evident that the involuntary muscles, deriving their nerves from the sympathetic, are endowed with powers of action independent of the nerves of the brain and spinal cord. That the heart is influenced in some degree by the brain and spinal marrow, is, however, certain; but this influence is slight, and is what might be expected from the numerous anastomoses of the cerebro-spinal nerves with the sympathetic; these have been ably pointed out by JACOBSON and LOBSTEIN, and although disputed at the time by some eminent anatomists, are now universally admitted.

2. Are painful affections of the viscera seated in the filaments of the pneumogastric or sympathetic nerves, or is the pneumogastric ever the seat of pain?

This point has created some discussion among physiologists, but it has, we think, been satisfactorily settled by the experiments of Bell and Broughton, that the pneumogastric is not a nerve of sensation; we have not space to detail their experiments on this subject, and must therefore refer our readers to their publications. It must, however, be stated that both LAENNEC and DESPORTES consider that pains in the heart and lungs might be seated in the filaments of the pneumogastric.

3. Is the pneumogastric nerve the sole nervous agent in digestion, or do the nerves of the sympathetic system exert any considerable influence in the digestive process?

This question has long been agitated among physiologists, and the experiments instituted to solve it are among the earliest of which we have any record. Without attempting even to notice the names of those authors who paved the way to our present knowledge on this subject before the time of HALLER, we find that both this writer and BAGLIVI speak of nausea and vomiting as induced by the division of this nerve. This is fully confirmed, and generally granted, though the effects it produces on digestion are not so well established. DE BLAINVILLE in 1808, and BRODIE in 1811, came to the conclusion that digestion was impeded, if not wholly prevented, by the division of these nerves; in this they were supported by LE GALLOIS, Dr. HASTINGS, and WILSON PHILIP. MAGENDIE and BROUGHTON did not go so far; they think that though the section of these nerves might render chymification more difficult, that the loss of the digestive power of the stomach was by no means the necessary consequence. The later experiments of BRESCHET, MILNE EDWARDS, and VAVASSEUR establish the following facts:—

1. That the simple section of the pneumogastric nerves in the neck, without loss of substance, and without altering the position of their extremities, does not prevent digestion from being performed; it only retards it in an evident manner.

2d. The division of these nerves, with a loss of their substance, considerably diminishes the digestive action of the stomach, but does not appear entirely to abolish it.

3d. Every thing that diminishes the sum of nervous influence transmitted to the stomach, impedes digestion.

We omit the other results of these experiments, as however interesting, they have but a slight bearing on the point under discussion. We are astonished that Mr. Teale has not alluded to the labours of these gentlemen; for although their conclusions differ but little from those of Philip and Brodie, they are important as proving the truth of their opinions.

From the experiments of the latter, Mr. Teale concludes—

> "That digestion does not solely depend upon the pneumogastric, and hence that some other nervous agent must possess considerable influence in the digestive process, and the source of this nervous energy must necessarily be the sympathetic; and disease situated in that portion of the sympathetic which is devoted to the stomach, may consequently interfere with the due performance of digestion."

He also thinks it probable that the secretions of the stomach are in a great measure dependent on the sympathetic, from the secretions of air and liquid spoken of above as attendant on tenderness of the spine, without there being any reason to suspect the existence of disease near the origin of the pneumogastric nerves.

He then lays it down as an important principle, that

> "Those nervous diseases of the heart, lungs, and stomach, which have been shown to be probably more dependent upon the sympathetic than upon the cerebro-spinal system of nerves, should not be regarded as diseases of the particular filaments distributed to these organs, but as diseases of the ganglia, or masses from which the filaments are derived."

This certainly appears to be a fair inference, from the fact of tenderness of that part of the spine which is contiguous to the particular ganglia, as well as the result of the treatment directed to these parts.

Mr. Teale must be understood as using the word irritation as defined by Broussais, as a morbid state, differing from inflammation only in degree, and presenting no marked line of demarcation from it.

We have been forcibly struck with the justice of the following remarks of our author, and will extract them without further comment, convinced that most medical men must acknowledge their truth.

> "It is too much the fashion, even in the present day, to attribute numerous neuralgic symptoms to sympathy, or a disorder of the digestive organs. If a

child be seized with convulsions from an irritating cause in the gums, stomach, or bowels, the convulsions are said to be *sympathetic* of such irritation. It is true that the irritation alluded to, may have been the primary cause of the convulsive affection; but, previous to such an effect, it must have produced some derangement in the vascular action of the brain. Of this cerebral disturbance, the convulsions are in reality symptomatic, and not of the original irritation. The danger and impropriety of regarding the convulsions as a sympathetic affection, will still further appear, when we consider, that a frequent repetition or long continuance of the vascular disturbance of the brain, will often be followed by more permanent disease, which may continue to advance after the original irritation which produced it has been removed, and may even proceed to a fatal termination."

The same may be said against regarding many other neuralgic symptoms as dependent upon disorder of the digestive organs, (a vague term including a variety of affections of the chylopoietic viscera.) These affections of the nerves, however, should be considered as rather denoting a diseased state of the nervous masses from which they are derived, than as indicative of irritation in the stomach and bowels. But there is another error which is productive of still more serious consequences; which is, calling an assemblage of neuralgic symptoms by the name of hysteria.

"How frequently do we see a female, labouring under a variety of distressing symptoms, referrible to the nervous system, and hear the consoling remark, 'It is only a fit of the hysterics.' By this the minds of the anxious relatives are composed, and the medical man also sometimes calms his own fears, by thinking, that, as the complaint is what is called hysteria, there can be no actual disease. But I would ask, can the pupils be dilated, the senses temporarily obliterated, the whole system of voluntary muscles thrown into spasm, without the existence of disease. No: the vascular system is seriously disturbed; the large nervous masses, as the brain, spinal marrow, and ganglia, are the seat of congestion, which also by continuance and repetition, may so far impair the tone of the capillaries as to produce a state of actual inflammation."

For some of the cases illustrative of Mr. Teale's views, we must refer to our Periscope.

Mr. Teale then proceeds to the consideration of *angina pectoris*, a disease whose diagnosis, pathology, and treatment, still remain in much uncertainty. The late Dr. KUHN of this city was of opinion with many of the continental writers, as BERGER, BUTTER, MACQUEEN, &c. that it never existed as a distinct disease. It was first distinctly pointed out by HEBERDEN, in 1772, and has since received much attention, although nearly every author differs in his estimation of what symptoms peculiarly characterise it.

In perusing the detail of symptoms as they are given by different writers, it is evident that they are subject to great variation, and that the disease is not confined to any particular set of symptoms, but that numerous morbid phenomena may be included in its range. All, however, agree, that the most striking and essential symptom is the peculiar constriction, anguish, pain, or oppression which is experienced in the epigastrium or lower part of the chest; most frequently there also exists pain in the arms, particularly on the left side, and not uncommonly palpitations and dyspnœa.

As regards its pathology, there is a still greater diversity of opinion; but the greater number of writers, particularly those of earlier date, consider it as dependent on some morbid condition of the heart, more particularly ossification of the coronary arteries. This theory was attempted to be proved by the celebrated PARRY, and has been supported by BURNS, JENNER, BOSTOCK, and more lately by BLACKALL; but it has not received confirmation from anatomical investigations, or the course of the disease, as numerous recoveries have taken place, which could scarcely have been possible if any considerable organic change had existed. Many other cases, which terminated fatally, and where the bodies were examined after death, presented no traces of diseased structure in the heart, whilst many cases of ossification have been recorded by Morgagni, Corvisart, &c. in which symptoms of ossification were not present.

Dr. HOSACK thinks that it proceeds from a plethora of the blood-vessels, more especially from a disproportionate accumulation in the heart and larger vessels. This theory is still less tenable than the foregoing, admitting of numerous fatal objections, to which we deem it needless to advert.

Some authors, and of no slight consideration, believe that it arises from an arthritic condition of the system. Dr. Butter has termed it diaphragmatic gout. This, with some modifications, is also the opinion of Dr. CHAPMAN; the grounds on which he bases his theory are ingenious and worthy of consideration.

The majority of recent writers are strongly impressed with a conviction, that it is attributable to a morbid state of the nervous system, and we in fact find in the treatises of those holding opposite tenets, occasional surmises of the implication of these parts, although they are considered rather as accidental and collateral circumstances, than as constituting the ground-work of the morbid derangement. Mr. Teale makes copious quotations in support of this, which we are sorry we are unable to insert.

Among the supporters of the nervous origin of the disease, Desportes observes, that angina pectoris has its seat in the pneumogastric nerve alone, whilst Laennec in assigning its cause to the nerves, thinks that its particular seat may vary. The opinions of Lobstein on this subject will be found in the preceding review.

Mr. Teale states that he is fully convinced that we must look to the nervous system for the source of this complaint, and is of opinion that

> "The great error which has been committed by those who have assigned to angina pectoris, a seat in the nerves, consists in their having overlooked the pathological fact to which he formerly alluded, namely, that when any of the nervous masses, as the brain, spinal marrow, or ganglia, are the seat of disease, the morbid phenomena are not so much exhibited in the masses themselves, as in the parts to which the nerves arising from them are distributed."

All the plans of treatment have been conducted on the principle of its seat being in the heart and neighbouring parts, and hence have so often failed in imparting relief.

Having already sufficiently exposed Mr. Teale's views, it only remains for us to present the considerations which induce him to refer the various groups of symptoms which have been described as angina pectoris, to an affection of some portion or portions of the spinal marrow and of the corresponding ganglia of the sympathetic:—

1. The fact that as has been observed above, that most of the morbid phenomena exhibited in the extreme filaments of nerves, are seldom owing to disease in the nerves themselves, but to an affection of the nervous mass from which they are derived.

2. The co-existence of pain on pressing some portion of the spine, with the symptoms constituting angina pectoris; and the correspondence of the painful part of the spine with the particular symptoms which are present; namely, tenderness in the lower dorsal portion of the spine, in conjunction with the stomach affection, constriction, &c. and tenderness in the cervical part of the spinal column; with pains in the arms, breast, and shoulders, and palpitations.

3. The relief obtained by antiphlogistic measures to the spine, for instance, to the lower dorsal portion, when the stomach is affected, and there is constriction, and to the cervical portion, when there is an affection of the arms and palpitations.

There are several interesting cases illustrative of these views, some of which we have inserted in our Quarterly Periscope.

Mr. Teale is of opinion, that *colica pictonum* also is dependent on a neuralgia of both the spinal and sympathetic nerves. Several of the continental writers have held somewhat similar views, as Lobstein and Andral, the latter of whom observes, that lead colic is a disease of the nervous system, in which the spinal marrow and plexus of the great sympathetic appear particularly implicated.

In conclusion, the author requests that he may not be thought desirous of advocating a theory of uniform infallibility, or a practice uniformly successful. He thinks, however, that when these diseases have proved unusually obstinate, or the treatment has entirely failed, that they have been complicated with others. Thus—

> "The bones or intervertebral cartilages are in some instances affected, and the nervous structures are thereby disposed to repeated relapse. The heart may be the seat of incipient organic changes, which seems to keep up irritation in the nervous masses from which its nerves are derived, or the stomach may have undergone some alteration of structure, which by its continued irritation, may keep up a disordered state of the ganglia, and thereby produce obstinate neuralgic symptoms."

There is one circumstance that should be kept in mind in the treatment, that in some peculiarly irritable constitutions, the application of blisters will produce a fever, during the continuance of which the disease of the nerves will be somewhat aggravated, but which will subside on its abatement. In such cases it would be better to give the preference to cups and leeches, or such irritating applications as act locally, without producing much feverish excitement.

From the interesting contents of this volume, we have been led to notice it much more fully than we intended, and cannot recommend it too highly to the attention of the profession. As we have before observed, the author has perhaps gone further in some instances than the state of our knowledge in pathology will strictly warrant, but at the same time it is eminently a practical treatise, containing more facts and less speculation than are usually found in medical treatises. It is a source of genuine gratification, to meet with a work of this character, when it is so often our lot to be obliged to labour hard to winnow a few grains of information from the great mass of dullness, ignorance, and mistatement with which we are beset.

BIBLIOGRAPHICAL NOTICES.

XX. *An Account of the Mode of Performing the Lateral Operation of Lithotomy, with Illustrations.* By Edward Stanley, Assistant Surgeon, and Lecturer on Anatomy and Physiology at St. Bartholomew's Hospital, pp. 33. 4to. VII plates. London, 1829.

Within a few years we have had several monographs from surgeons of high authority on the subject of this essay. A history of the success of this operation establishes its superiority over all others which have been hitherto proposed. The inventors of it should not be forgotten by their professional descendants.

Pierre Franco, who flourished in the sixteenth century, was the first surgeon who performed the lateral operation for stone. The honour, however, of bringing this operation to the general notice of the public is due to Frere Jacques, a French ecclesiastic. It is said that he performed the operation five thousand times. Rude and unsuccessful in his first attempts, he would have sunk into disrepute, had he not directed his attention to the subject of anatomy. Having profited by this course of study, and by the suggestions of the surgeons who were eminent at that period, he so improved his former method of operating, as to be rewarded with a degree of success unparalleled in the history of capital operations. But a short period previously to his death he operated on thirty-eight patients in succession, without losing one.

A knowledge of Frere Jacques's method was acquired by Rau, of Holland, Mareschel, of France, and Cheselden, of England. The great English surgeon, however, acquired by his operations an extent of fame which far exceeded that of his contemporaries. Of fifty-two patients on whom he operated successively, in St. Thomas Hospital, but two terminated fatally. The operation of Cheselden, with the improvements of Sir Cæsar Hawkins, which consists in substituting the gorget for the knife, is the one most commonly practised in this country, and particularly in this city. This operation, in the hands of the surgeons of the present day, is certainly not so generally successful as above stated.

We are not disposed to condemn the modern operation for extracting the stone, proposed by Sanson, called *recto-vesical,* nor the more recent one, practised by Civiale, denominated lithotrity. Both operations may be well adapted to particular cases. As neither of them, however, are adapted to *cases in general,* as the degree of suffering to which they subject the patient is sometimes quite equal to the one under consideration, and as their success is not greater, we are not inclined to place less reliance or value on an operation which has been most happily practiced for ages.

Considering then, the wonderful success of the lateral operation, a success which reflects honour on the illustrious names whom I have quoted, it seems to be our duty to become acquainted with *their* method, and to imitate it as closely as possible. The work under consideration has the merit of accurately describing Cheselden's mode of performing the lateral operation. As might be expected, it contains little that is new on a subject that has engaged the attention of greater minds. This treatise is, however, what it professes to be, "a simple, yet sufficiently detailed account of the mode of performing the operation unencumbered by critical or historical matter." The author has besides illustrated in an instructive manner, by means of engraved plates, the healthy and morbid anatomy of the parts concerned in the lateral operation. In this, indeed, consists the chief value of the work.

Plate I. affords a front view of the muscles in the perineum, of the perineal artery, and a dotted line representing the course of the first incision in the lateral operation.

Plate II. represents a lateral view of the muscles in the perineum, a portion of the triangular ligaments, &c. &c.

Plate III. A front view of the viscera of the pelvis, and of the muscles in the perineum, with a coloured view of the pudendal artery "in progress across the obturator internus muscle to the ramus of the ischium."

Plate IV. A representation of the course of the pudendal artery and its branches.

Plate V. Contains several figures; viz. a representation of the artery of the bulb of the urethra, and figures giving a view of the diminutive size of the prostate gland at the ages of from four to twelve years, when compared to that of the adult.

Though this anatomical fact is well known, yet the author has enforced the necessity of bearing it in recollection by the subjoined remarks. "In performing the lateral operation upon the young subject, it is necessary to recollect the small size which the prostate retains to the period of puberty, that there may be no risk of extending the incision of the gland beyond its proper limits. It may seem that an incision which is confined to the left lobe of the prostate in the young subject cannot be sufficient for the extraction of even a small stone; but it is to be recollected that the small extent of the incision in the young subject is compensated by the facility with which the parts will yield to the gentlest pressure."

Plates VI. and VII. Exhibit lateral views of the bladder and rectum of old subjects. These plates represent the rectum in a state of great dilatation; the prostate gland inordinately enlarged, and by reason of it, the bladder is elevated to a level with the superior part of the pubis. The author remarks that this "section of the prostate displays the increased length, and the altered direction of the urethra within the gland. The measure of the urethra between the orifice of the glans and orifice of the bladder was eleven inches. It will be well to remark the sudden turn which the urethra makes on entering the prostate, and its further progress directly upwards to the cavity of the bladder, with a view to the sort of curve a silver catheter would have required in this case."

If this altered condition of the parts concerned in lithotomy is not anticipated by the surgeon, he will find himself, when operating, in a state of embarrassment, from which it will require no small degree of self-possession to recover.

If the operation above the pubes is ever warrantable, it is when the parts are in the condition above detailed.

In describing the operation, the author differs from Cheselden on one material point. In common with most modern surgeons, he urges the necessity of retaining the urine in the bladder before the operation, while his great master states that it is more convenient to have the bladder "empty of urine before the operation; for if there be any quantity to flow out of the bladder at the passing of the gorget, the bladder does not contract, but collapses into folds, which makes it difficult to lay hold of the stone, without hurting the bladder; but if the bladder be contracted, it is so easy to lay hold of it, that I have never been delayed one moment, unless the stone was very small."

I believe the operation may be performed in either way with perfect safety. Certain it is, that the lining coat of the bladder is frequently in such a state of irritation at the time of the operation, as to render the patient unable to retain more than an ounce of urine. The operation is often performed under such circumstances without accident. From the testimony furnished by such cases, added to that from Cheselden, we must believe that the general rule which is now adopted of retaining urine in the bladder previously to the operation, is not so indispensable as has been represented.

In giving precise directions with regard to the adjustment of the *staff*, the author makes the following suggestion, which is worthy of attention. "The assistant holding the staff is usually on the right side of the patient; but an advantage may result from his being on the opposite; it gives him the command of the staff with his *right hand*."

As surgeons of eminence differ as to the point of commencement, extent, and direction of the first incision, it may be well to append Mr. Stanley's directions, which are nearly those of Cheselden. "The first incision," he remarks, "should be commenced an inch and a quarter above the anus, and a little more than a quarter of an inch to the left of the raphé, and is to be continued obliquely outwards and downwards to the extent of about three inches, towards the tuberosity of the ischium." He further adds, that the "exact line of the incision should be one-third from the tuberosity and ramus of the ischium, and two-thirds from the anus. Any deviation from this had better be by an approximation of the incision to the tuberosity, rather than to the anus.

"In a thin person a scalpel may be plunged through the integuments directly into the membranous portion of the urethra, but with a considerable depth of fat in the perineum this is difficult, and in attempting it the bulb will be most certainly divided, its artery wounded, and the urethra penetrated anterior to its membranous portion."

The above directions are so accurate and judicious as to deserve the particular attention of at least young surgeons. He particularly cautions the operator against wounding the bulb of the urethra or its artery. Great inconvenience results from this accident, and hæmorrhage to such an extent as to threaten the life of the patient. On every account then it is adviseable not only to avoid the bulb, but to open the membranous part of the urethra as near to the prostate gland as possible.

On the subject of the *direction* of the incision of the prostate gland, the author remarks, that "by dividing its left lobe obliquely outwards and downwards, there will be a correspondence between the incisions of the outward and inward parts, which must be favourable for the extraction of the stone, and for the free discharge of the urine; and it may be added, that an incision of the prostate cannot be made in any other direction with so little risk of injury to the pudendal artery or to the rectum."

To the above reasons in favour of dividing the prostate in the depending portion of the left lobe, with an inclination towards the rectum, it might be added, that the operator avoids wounding the veins which return the blood from the vena magna ipsius penis. These veins form a plexus around the posterior and superior edge of the prostate. When the incision is so directed as to slice off, as is frequently done, the upper surface of the gland, these blood-vessels must be necessarily wounded, which is always followed by troublesome venous hæmorrhagy.

On the comparative merits of the gorget and knife, the author makes the following judicious remarks. "An exclusive preference is not to be given to the gorget or to the knife for the incision of the prostate. With either instrument, skilfully used, the operation may be well done. With a gorget properly constructed there is no risk of wounding the pudendal artery, or the rectum, because the limits of the incision are determined by the dimension and form of the instrument. With a knife in an inexperienced hand there is not so much certainty of confining the incision within its proper limits."

"For the young subject, or for a thin adult, the knife is especially suited. It is also to be preferred for any case in which the bladder is closely contracted upon the stone. But for a very fat, or for an old subject, in whom, by the enlargement of the prostate, or the dilatation of the rectum, the bladder is raised much above its natural situation, the gorget is better adapted, on account of the great distance from the perineum, at which the prostate, and neck of the bladder, are, in such instances, situated."

This essay is closed with some remarks "on the construction of instruments for the operation." The author's directions on this point are not of sufficient importance to demand a particular notice. The form of gorget which he recommends is not, in our judgment, equal to the one designed by our distinguished countryman, Dr. Physick. It is, indeed, a subject of surprise, that it is not more generally used by European surgeons. It is too small a matter to attribute its neglect to national prejudice.

XXI. *Traité Général D'Anatomie Comparée.* Par J. F. Meckel. Traduit de l'Allemand, et augmenté de notes, par MM. Riester et Alph. Sanson, Docteurs en Chirurgie de la Faculté de Paris. Précédé d'une lettre de l'auteur. Tome IIIme. 1ere et 2de partie. Paris, 1829.

We have heretofore announced the preceding part of this valuable work, and as we have now received the first and second parts of the third volume, it may be expected that the remaining volumes will be published during the current year. The first part of the third volume is appropriated to the description of the various pieces composing the skeleton of birds, and a comparison of these with the parts forming the skeleton of mammiferous animals. In this part of the work the author shows great critical excellence in examining the opinions advanced by his predecessors, and displays numerous evidences of great research throughout all the divisions of ornithology. To an anatomist and physiologist, these comparisons are replete with interesting facts leading to instructive reflexions, while they enlarge his views of the plan and resources of nature, in adapting her beings to the most opposite conditions by slight modifications of structure. But such details offer few opportunities for advantageous extracts, as their interest is chiefly owing to their being viewed in relation. The second part is exclusively devoted to the skeleton of mammifera, and is a rich repository of facts, neatly arranged, all of which are supported by the observations of the author, whose indefatigable industry has enabled him to extend his researches over a vast field. The notes appended by the translators are interesting and valuable, especially as some of them contain corrections of accidental errors or misconceptions of the author relative to the views of some living authorities. The work when completed will be an excellent acquisition to the library of the anatomist, and every confidence may be placed in the correctness of details which are vouched for by such an observer as Meckel.

J. D. G.

XXII. *A Manual on Midwifery; or a summary of the Science and Art of Obstetric Medicine; including the Anatomy, Physiology, Pathology, and Therapeutics, peculiar to Females; Treatment of Parturition, Puerperal, and Infantile Diseases; and an Exposition of Obstetrico-legal Medicine.* By MICHAEL RYAN, M. D. &c. &c. &c. London, 1829, pp. 353, 12mo.

This ample title page pretty fully explains the nature and arrangement of the work under notice; but it, at the same time, excites our surprise, that so many subjects can, with any degree of success, be treated of in a 12mo. of 353 pages. Though we have an utter abhorrence at all "royal roads" to practical midwifery and its relations, as explained in the title page of this work, we are, nevertheless, bound to confess, that the author has redeemed his promise with more success than has been done in any work we have yet seen, which purported to be a "manual." The author appears to have been laborious in research; and to possess the happy art of condensing the sense of his authorities, without destroying the spirit of their meaning. He appears truly, (as he declares it was his intention,) "to compress, in a small compass, all the valuable matter connected with the anatomy, pathology, and therapeutics of the organs peculiar to females," and to have furnished his reader with the opinions of many authors that cannot be consulted in this country. This culling is acceptable to all readers; and is particularly valuable to those who may be desirous of consulting the literature, upon the various subjects of which he treats. He rarely fails to instruct by his erudition; and as seldom misleads by his practical precepts, or his therapeutical views; he appears to be well qualified to choose from the many sources to which he has resorted; as he manifests a tact for selecting, which can only be derived from both experience, and correct reasoning. In a word, it is a work that we can confidently recommend, not only as safe to follow, so far as his directions go, but as one, from which the experienced, and well-instructed practitioner, may find considerable information; and under these impressions, we do most cordially recommend its perusal to the American public.

We have, however, to regret, that the author has not urged his title to praise for industry in collating, and skill in selecting, to which he has such strong claims, with more becoming modesty; especially, as it would, in our opinion, have advanced his pretensions. For, at this day, it is much to say, that, "the classification of the subjects is more natural, and, in my opinion, more scientific, than that of any other writer."—*Preface.* This is a blot, that we trust the good sense of the author will expunge in the next edition of his truly interesting little work. There are, perhaps, other egotisms that we might find fault with, did we not feel it would be wrong to be fastidious, where we have so much to commend.

XXIII. *Bulletin Universel des Sciences et de l'Industrie, Publié sous les Auspices de Monseigneur le Dauphin.* Par la Société pour la Propagation des connaissances Scientifiques et Industriels, et sous la Direction de M. le Baron de Ferussac. 8vo. Paris, 1829.

The most extensive and laudable enterprize ever undertaken for the purpose of establishing a regular and periodical communication between those engaged in the pursuit of science, literature, and the arts, in every part of the world, is unquestionably the publication of Baron Ferussac, which was commenced in 1823, under the title of "Bulletin Général et Universel des Annonces et des Nouvelles Scientifiques." It was proposed to embody in this journal a condensed view of all the facts, observations, discoveries, works, memoirs, and writings published in every part of the world; and a number, containing about one hundred and seventy pages, was published every month, forming during the first year four volumes. The decided approbation which this enterprize received, and the support that was accorded to it by learned societies, and individuals, in every country, induced the projector and conductor subsequently to enlarge very materially its plan, and to change its name. Accordingly, in January, 1824, it appeared under the name of *Bulletin Universel des Sciences et de l'Industrie;* and was divided into eight sections; the 1st devoted to the Mathematical and Physical Sciences and Chemistry; the 2d to Natural History and Geology; the 3d to the Medical Sciences; the 4th to Agriculture, Horticulture, Fishing, and Hunting; the 5th to Technology; the 6th to Geography, Statistics, Political Economy, and Voyages and Travels; the 7th to History, Antiquities, and Philology; and the 8th to the Art of War. Each of these sections is published separately, a very great advantage, the student being thus enabled to restrict his subscription to those sections which relate to the subjects most interesting to him.

Among the first objects that engaged the attention of the projectors of the *Bulletin Universel,* as the necessary foundation of their undertaking, was to make arrangements to receive regularly all the periodical publications relating to the sciences and arts, the memoirs of all the learned societies, &c. and so successful were their exertions, that in a few years they found themselves in the receipt of nearly *seven hundred* different periodical publications—the most complete and extensive collection of the kind ever formed.

The immense amount of the materials thus collected, the fresh impulse which the general cultivation of the arts and sciences are daily acquiring, and the conviction of the importance, that those engaged in the pursuit of science should receive regularly, through means of a suitable publication, information of all the discoveries and views that may tend to accelerate their progress, rendered it necessary that the *Bulletin* should be still further enlarged; and to render it as complete and permanent as possible, a society was formed for its support, under the title of "*La Société pour la Propagation des Connaissances Scientifiques et Industrielles.*"

This society received at once the sanction of the protection of the king of France, was placed under the patronage of the heir apparent of the throne, and nothing appears to have been omitted that could give eclat or permanency to the undertaking, or extend its usefulness. Since the commencement of 1829, the Bulletin has been published by this society; and now collecting every month, the isolated facts and documents into the eight repertories that form the *Bulletin Universel,* it diffuses in various countries its collected information, and disseminates at all points the lights of general knowledge.

Each of the sections is placed under the particular superintendance of a principal editor, who receives the support of a number of collaborators, among whom we find the names of some of the most distinguished men in Europe.

The only one of the sections with which we have any thing at present to do, is the third, or the *Bulletin des Sciences Médicales.* The principal editor of this section is Dr. Defermon, and we find among his coadjutors MM. Andral, Begin, Boisseau, Bourgery, Breschet, Cuvier, Desgenettes, Desmarets, Desruelles, Gendrin, Luroth, Magendie, Rostan, Velpeau, and a host of other not less distinguished names.

We have before us the number of this section for July last, which contains under the heads of *anatomie, physiologie, médecine, chirurgie, ophthalmologie, therapeutique, matière médicale et pharmacie, art vétérinaire,* and *mélanges,* a notice of the principal works that have been published in these departments, and the most important facts that they contain; minutes of the meetings of the Royal Academy of Medicine, &c.

We have constantly enriched our periscope with extracts from this work, and we shall continue to furnish our reader with information from the same source.

It is almost unnecessary to remark how important it is that all public libraries and colleges should possess the Bulletin Universel, furnishing as it does, a description and amount of information no where else to be met with in the same space, or at so small an expense. The subscription for the whole Bulletin, in Paris, is fifty-two dollars per annum—for the medical section, eight dollars and a half.

XXIV. *A Practice of Physic, comprising most of the Diseases not treated of in "Diseases of Females," and "Diseases of Children."* By William P. Dewees, M. D. Adjunct Professor of Midwifery in the University of Pennsylvania, Member of the American Philosophical Society, Member of the Philadelphia Medical Society, &c. Carey & Lea, Philadelphia, 1830, Vols. II. 8vo. pp. 833.

The works to which a large majority of the profession in this country have been restricted for information in practical medicine, are those of Cullen, Thomas, Gregory, and Good. That these are fallacious, and often dangerous guides, is perhaps generally admitted; and if they have been consulted and followed by practitioners, it has been rather because better were not to be found, than that any great confidence was reposed in them. The First Lines of Cullen have been long celebrated, and are still unrivalled for the beauty and accuracy of the descriptions of diseases, but are entirely deficient in correct pathology, and the practical instructions they contain are not unfrequently injudicious, and always too general and unsatisfactory to serve as a guide through the difficult and perplexed paths of practical medicine.

The Modern Practice of Physic, by Dr. Thomas, possesses no merits that we have ever been able to discover; it is altogether beneath criticism.

The Practice of Medicine of Dr. Gregory is a work of a higher order, but still far below the present state of the science. The author is evidently a man of observation and experience, and the best parts of his work are those that are original; but when he borrows from others, it is often done without judgment; his acquaintance with pathology is extremely slender, his views generally inaccurate, and his therapeutic directions too often those of a mere routine practitioner, and not unfrequently absolutely empirical.

Dr. Good's "Study of Medicine" is a rich store-house to which the student may refer with great advantage for information respecting the history of diseases, and the opinions of authors respecting them; it displays profound erudition, elaborate research, and is written in a style of elegance and purity, of which we wish there were more examples in the literature of our science. It is, however, disfigured by a nosological nomenclature, whose only merit is that it is classical, but which has the great demerit of being founded on erroneous pathological notions, and is doubly mischievous, from the imposing pretensions it makes to accuracy. Dr. Good was in fact a literary man, and not an experienced practitioner, and his work shows more of the labours of the closet than of experience gained at the bedside of the sick. His notions respecting the nature of diseases can hardly be dignified with the name of pathology, and his therapeutic rules are little else than an exposition of the practice of various writers, which have been collected with great labour, of course often contradictory, and between which the student is allowed to select the best, with little assistance from the author.

Such being our estimate of the principal works on the practice of medicine that are accessible to the physicians in this country, it may be supposed that we hail with great pleasure the appearance of the work, the title of which stands at the head of this article, coming as it does from one, who, if excellent talents for observation, a sound judgment, considerable research, an honest desire to arrive at the truth, and forty years experience, constitute claims, has very strong ones to our confidence. As we intend hereafter to review this work, we shall not anticipate what we have to say respecting its peculiar merits, but will merely remark that we conceive the author to have conferred an important benefit upon the profession by its publication, and that it should be carefully studied by all the junior members of the profession, and may be advantageously consulted by the most experienced.

XXV. *Handbuch der Anatomie.* Von **Martin Munz**, Doctor, &c. Professor an der Ludwig-Maximilien's Universitæt zu Landshut. 3 Bände; Enhaltend 1r die Muskel-lehre nach Albin, in Steinabdrücken, &c.; 2re die Gefæsslehre; 3r die Eingeweidlehre oder lehre von dem Sämmtlichen Verdauungsorganen, &c. &c. mit 80 Abbildungen in Lebensgrösse auf 10 folio blättern, &c. Landshut, 1821–7.

Manual of Anatomy. By **Martin Munz**, M. D. Professor in the University of Louis Maximilian, at Landshut, in 3 volumes; the 1st containing Myology, with engravings on stone from Albinus; the 2d Angeiology; and the 3d Splanchnology, with 80 folio lithographic plates of all the Organs of Digestion, Generation of the Voice, &c. &c. Landshut, 1821–7. 3 vols. 8vo. pls. 3 nos. fol.

The object Professor Münz had in view in preparing the work before us, was to render the study of anatomy among his fellow citizens more easily accessible, by giving them such engravings as those of Albinus, &c. in a manner that should be as cheap as possible without any loss of correctness. He therefore published in lithography copies, of those celebrated engravings, nearly all of which are transferred by his own hand, and have an appearance of being faithfully executed. The lines are necessarily dark and strong, and the figures all have an air of boldness, which does not bespeak a very elegant touch on the part of the draughtsman, yet there is nothing offensive to the eye, even in those which are most peculiarly of the sort described. We have no doubt of the benefit conferred upon his professional brethren by the Landshut professor, since the whole set of his engravings, three large numbers, in folio, two feet long, by eighteen inches broad, accompanied by three octavo volumes of explanatory text, does not cost more than one-fourth of the price of Albinus's muscles alone. We have not had an opportunity of bestowing much attention on Dr. Münz's text, though what little we have read of it appeared to be well suited to its purpose. It is probable that the plates might be obtained for persons in this country without the text, and in this case their real worth and cheapness would render them very desirable to practitioners of medicine. They can be had through F. Huttner, Sixth street, Philadelphia. J. D. G.

XXVI. *Addresses delivered on Various Public Occasions.* By **John D. Godman**, M. D. &c. &c. &c. *With an Appendix, containing a Brief Explanation of the Injurious Effects of Tight Lacing upon the Organs and Functions of Respiration, Circulation, Digestion, &c. &c.* Philadelphia, 1829, pp. 194, 8vo.

We should have been pleased to have noticed this volume before, but the relation which the author of it has long stood to this Journal, induced us to withhold our opinions, lest they should be ascribed to feelings of personal friendship, which the writer as a man is proud to acknowledge, but which as a critic he hopes in this, as in all other instances, leave him entirely unprejudiced.

As however the work has been now noticed in various publications, and always in terms of the highest commendation, we may, without imputation, record our own favourable opinion of its merits.

The addresses comprised in this volume are selected from the introductory and valedictory lectures delivered by the author to his private classes, or to those institutions in which he was professor. Many of them treat of subjects of extreme interest to the medical student, who cannot fail to derive both pleasure and profit from their perusal. They breathe a pure system of ethics, and represent the standard of professional character sufficiently high, to be an object of gratifying contemplation, and its attainment worthy the ambition of the most aspiring.

The titles of these discourses are as follows:—1. Monitions to Students of Medicine.—2. Anatomy taught by Analysis.—3. Professional Reputation.—4. On Dissection.—5. Character and Influence of the Study of General Anatomy.—6. On the Study of Natural History.—7. Anatomy applied to the Fine Arts.—8. Mechanism of the Human Body.—9. Valedictory.

There are many students scattered over the United States, who have had the benefits of Dr. Godman's instruction, and who will be pleased to possess this volume, if it were only as a memento of one who has sacrificed his health, by his indefatigable and continued exertions for their improvement.

QUARTERLY PERISCOPE.

FOREIGN INTELLIGENCE.

ANATOMY.

1. *Human monster with two heads.*—This is described by Dr. De Michaelis, professor of anatomy and surgery in the Royal University of Sassari, in Sardinia, in the *Annali Universali di Medicina*, for May, 1829. Maria Teresa Parodi, at Sassari, ætat. 32, having borne eight well-formed children, was delivered on the 3d of March, 1829, of a female child, the upper part of which was double; it presented with the heads, which were easily protruded, the one after the other; the umbilical chord and the placenta were single. On closer examination, the child was found to be well-formed inferiorly up to the base of the thorax, which gradually widened, and at the cervical region, gave rise to four well-formed arms, and two distinct necks and heads. The following is an extract from the description.

On regarding the anterior surface of the thorax, it appears to form only one cavity, common to both children, the middle of the sternum being somewhat concave, and forming, as it were, a furrow, at the sides of which the sternal extremities of the ribs of both the children meet. In the usual situation there are two mammæ; the right of the right, and the left of the left child; and at the upper angle of the sternum, two well-formed clavicles are inserted, which belong to the external upper extremities; besides these, two smaller clavicles are seen rising from the middle portion of the sternum for the internal upper extremities, the shoulders of which are lying very near each other. The necks are quite insolated, and have the two shoulders between them; their two anterior surfaces are directed anteriorly, and toward each other, so that the children, in their natural position, embrace each other with the inner arms. The posterior surface of the thorax exhibits, in its median line, the inner ribs of both children meeting each other, and closing it posteriorly; below these, the hypochondriac regions are completely united, and inferiorly closed by a simple sacral bone, the base of which is somewhat broader than usual. Laterally from the posterior median line, the two armpits of the inner upper extremities, and the two internal mammæ are seen very near each other; the two spinal columns are slightly converged, till they meet at the sacral bone; the circumference of the abdomen does not exceed that of an ordinary infant of the same age; the navel is in the usual place; the pelvis, and the two lower extremities, exhibit nothing unusual; the external genitals are somewhat lower than usual, the labii and nymphæ are well-formed, and cover three apertures, the larger of which being situated in the middle, appears to be the opening of the vagina; the two others being smaller, must, from their lateral position, be the two urethral openings; moreover, the nurse has seen the urine discharged from both openings simultaneously, from which circumstance it should appear that there is one bladder with two urethræ. The anus is single, and at the usual place.

At the first the health of both children appeared to be equally good; but, at the time of drawing up the report, nineteen days after birth, it appeared that the left was more vigorous than the right; which had an icteric hue, and was affected with slight ophthalmia. The children are suckled by the mother and a nurse; they appear to have the sensation of hunger at different times, from which it should seem that there are two stomachs; the pulsations in the præcordial regions are synchronous; the temperature of the skin, evacuation of the fæces and urine, and sleep are natural. If the genitals or anus be irritated, both children appear to feel it equally.

Since the above was in type, the intelligence of the death of this child has reached us. The head on the right side had been christened Ritta, that on the left Christina. Ritta had been ill for three days, and her illness did not appear in any degree to influence the health of Christina, so that at the moment when Ritta died, Christina was hanging on the breast of her mother and playing with her face. But suddenly she let go, heaved a sigh, and died.

The following are the most interesting details of this truly curious autopsy:—

Upon inspecting the chest, the lungs were found in a healthy state, and of a pretty regular conformation. The right lobe of the lungs of Ritta, and the left one of Christina, were evidently cramped in their development; they were consequently more contracted than their other moiety.

The pericardium was single, but enclosed two hearts so closely connected and bound together that during life the peristaltic motions must have been simultaneous, and consequently confounded. This explains why the stethoscope transmitted but the sound of a single organ of circulation, and shows why, when life ceased in Ritta, Christina was likewise obliged to lose her's; the beating of the heart of one being locked or enchained by the immobility of the other's heart.

The organs of digestion were double, as far as the cœcum. From the cœcum, as far as the anus, there was but a single duct or passage.

There were two livers, but they united into one.—The uterus was likewise double.

The opening of the body of Christina-Ritta has not furnished any very precise idea of the nature of the disease by which death was produced. A slight adhesion of the posterior part of the pleura of the right side, with the emphysema of the lungs, indicated the existence of an inflammation of that membrane, but neither intense nor extensive, and not such as could have produced immediate death. Death might rather, perhaps, have been imputed to a considerable accumulation of feculent matter in the rectum. Nothing could have been more easy than to have removed this accumulation, which has produced such an unfortunate result.

The remote causes of the disease by which death was produced may doubtless be traced to the delicate constitution of Ritta, and to exposure to the first colds of winter in apartments very imperfectly heated. It was with difficulty that Ritta supported the fatigue of travelling, while her sister seemed to suffer no sort of inconvenience. In the towns where they were well received, and where they could stay a long time, Ritta recovered her health with surprising rapidity, so rapidly that M. St. Hilaire says he has observed nothing equal to it in an isolated being, and ascribes it to the support received from her sister Christina, who being endowed with a very robust organization, had no doubt greatly contributed to these sudden restorations. Their stay at Lyons had been very favourable to their health. They seemed even well on their arrival in Paris, although Ritta appeared to be fatigued: but here when the severity of the season required the greatest care, the relatives, deceived in their hopes by the interference of the authorities, were reduced to a mode of life inconsistent with the care which was necessary for the preservation of their child.

It is known that Ritta only was unwell, and that Christina, whose health was good to the end, was suddenly struck dead, at the moment when her sister expired. The perfect health of Christina is the more surprising, when it is considered that the accumulation or interruption to which the death is ascribed, was situated in that part of the intestines which was common to the two sisters, but it must be remembered, that an interruption which may be slight and indifferent to a well-constituted and even vigorous body like that of Christina, might be serious to one so debilitated as that of her sister. The heart of Ritta, compressed by that of Christina, and otherwise straightened in its movements, found itself incapable of reacting against the congestion produced by the very considerable interruption in the great intestines.

Christina-Ritta was evidently not destined to attain an advanced age. There was too much inequality between the two parts, but every thing indicates that she might have lived for several years. Her premature death has deprived the world of many interesting observations which might have resulted from the development of two intellects existing, if not in a single organization, at least in two organizations so closely united. Of how many phenomena, psycological, physiological, and pathological, are we deprived?—The study of a being like this, arrived at an age when she could account for her ideas and sensations, would be one of the most interesting which could be offered to the meditation of the philosopher.

The possibility of the prolongation of the life of such a being to mature age appears to be demonstrated, and there is no longer any reason to doubt the general veracity of the authors who have written on such subjects. Some information has lately been given of a bicephalous girl who died in Hungary, at the age of twenty-one, the death of the two parts not being instantaneous, as in the case of Christina-Ritta, but an interval of five minutes having occurred between the death of the one and the other.

2. *Malformation of the Genitals—Hermaphodism.*—An individual exhibiting this unfortunate irregularity of structure was admitted into Charity ward, Sept. 30th, under the care of Dr. Bright. She was then suffering under a severe form of fever, which rendered her constantly delirious, and in a few days proved fatal.

On her admission,* and more especially when in order to apply a blister to her head, it was exposed and shaven, every one was struck with the coarse and masculine expression of her countenance: this, and her somewhat square and muscular figure, were all the observations relating to her sex that were made during life; but the post mortem inspection disclosed the following appearances:—

A body analogous to the penis was observed immediately beneath the pubic arch; not free or pendant, but bound down towards the perineum; its length was about two inches and a half, and it terminated in a somewhat bulbous extremity, a little like the glans, but without the usual delicacy of cutaneous organization, without any perforation for the urethra, and without a prepuce. On each side of this body there was a considerable fulness of the integuments, at first view resembling the female labia, but in reality analogous to the male scrotum, as, like it, they contained each a small testis. This separation, into its two halves, of the scrotum depended on the penis being bound down in the median line, as previously described. The testes were in size like those of a boy six or eight years old, and were connected with vasa deferentia, which were found pervious, and considerably enlarged towards their termination. The vesiculæ seminales were very small; the prostate gland also was remarkably small, and was covered on its sides by a pair of peculiar muscles passing from the rectum to the neck of the bladder. The urethra terminated in the perineum, about one inch from the end of the supposed penis, and half an inch further there was a blind opening, which fancy might call the rudiment of a vagina, but which was probably nothing, more than an enlarged lacuna. The tunica vaginalis was continued some distance up the cord, but at the ring was quite closed. There was a very minute trace of cremaster muscle. The pelvic viscera had no female character whatever, and the formation of the pelvis itself approached to the male rather than to the female standard. The mammæ were considerably developed, but would have been thought small for a healthy female. The lips and chin were clothed with a few scattered, irregular, curling hairs, not more than are often seen on aged females. The outline of the figure, in its muscular development, squareness, and largeness of limbs, &c. was decidedly more male than female. The cerebellum was natural in structure, and if it differed at all from the usual development, was rather small, but this was by no means distinct. No other peculiarities, either diseased or congenital, were observed in any part of the body.

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* Speaking of her as a *patient*, we adhere to the sex then assumed. She was admitted as Mary Cannon, æt. 55 or 60.

It appears that in the former part of her life, this hybrid had assumed the dress and habits of a man; at one time working in a brick-yard, at another period acting as a groom; then as a milk-man; and afterwards she kept a green-grocer's shop. Her habits and manners were rude and bold, sometimes indicating a degree of derangement; more than once she engaged with success in pugilistic encounters; and it is said, manifested still less equivocally male propensities. For the last seven or eight years she has appeared as a female, calling herself Mary Cannon; and it is odd enough, that she first sustained her new sex at a public house, called "The World turned upside down," where she engaged herself as "maid of all work." She was not, however, fully received by her female fellow servants as one of them; suspicion hung about her, and care was always taken to provide for her a separate bed.—*London Medical Gazette, Oct.* 1829.

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3. *Hyo-epiglottideus Muscle.*—The *London Medical Gazette*, for May last, contains a description of this muscle. It is of a triangular form, arises from the whole posterior or concave margin of the base of the os hyoides, between the two superior cornua, and its fibres converge to be inserted into the centre of the anterior convex surface of the epiglottis. Its action will be to raise the epiglottis, and draw it forwards on the tongue. This muscle is described by Blumenbach, who says that it exists in most of the mammalia, but is not found in man. Fibres answering to the above muscle were known to Albinus, Sœmmering and Winslow. In the modern works on anatomy, however, this muscle is not described.

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4. *Congenital Malformation, in which the Rectum opened into the Membranous part of the Urethra.*—A case of this occurring in a male infant is related in *La Clinique.* The fæces were in part expelled with the urine. No attempt to make an artificial anus was made, and the child died on the fourth or fifth day.

PHYSIOLOGY.

5. *On the Existence of Active Molecules in Inorganic Substances.*—In our 7th No. we published an account of the discovery by Mr. Robert Brown, of active molecules in inorganic substances, and in the succeeding No. some observations by Robert Bakewell, Esq. who denied the existence of these active molecules in inorganic substances, and pointed out the causes which he supposed led Mr. Brown into error. The latter gentleman has again taken field, and shown, by some further exceedingly ingenious investigations, an account of which is published in the *Edinburgh Journal of Science,* for October last, that there are really grounds for believing in the correctness of his observations.

Mr. Brown commences his memoir by explaining and modifying some of his original statements. He notices first an assertion that has been made, that he considered the active molecules to be animated; this he says is erroneous.

"Although I endeavoured strictly to confine myself to the statement of the facts observed, yet in speaking of the active molecules I have not been able, in all cases, to avoid the introduction of hypothesis; for such is the supposition, that the equally active particles of greater size, and frequently of very different form, are primary compounds of these molecules—a supposition which, though professedly conjectural, I regret having so much insisted on, especially as it may seem connected with the opinion of the absolute identity of the molecule, from whatever source derived.

"On this latter subject, the only two points that I endeavoured to ascertain, were their size and figure: and although I was, upon the whole, inclined to think that in these respects the molecules were similar from whatever substances obtained, yet the evidence then adduced in support of the supposition was far from satisfactory; and I may add, that I am still less satisfied now that such is the fact. But even had the uniformity of the molecules in those two points been absolutely established, it did not necessarily follow, nor have I any where stated, as has been imputed to me, that they also agreed in all their other properties and functions.

"I have remarked, that certain substances, namely, sulphur, resin, and wax, did not yield active particles, which, however, proceeded merely from defective manipulation; for I have since readily obtained them from all these bodies: at the same time I ought to notice that their existence in sulphur was previously mentioned to me by my friend Mr. Lister."

In prosecuting his subsequent inquiries, Mr. Brown has chiefly employed a simple microscope made by Mr. Dollond, of which, the three lenses he has generally used, are of a 40th, 60th, and 70th of an inch focus.

Many of the observations have been repeated and confirmed with other simple microscopes having lenses of similar powers, and also with the best achromatic compound microscopes, either in his own possession or belonging to his friends.

The result of the inquiry at present essentially agrees with that already published, and is as follows:—

"That extremely minute particles of solid matter, whether obtained from organic or inorganic substances, when suspended in pure water, or in some other aqueous fluids, exhibit motions for which I am unable to account, and which, from their irregularity and seeming independence, resemble, in a remarkable degree, the less rapid motions of some of the simplest animalcules of infusions. That the smallest moving particles observed, and which I have termed active molecules, appear to be spherical, or nearly so, and to be between 1-20,000dth and 1-30,000dth of an inch in diameter; and that other particles of considerably greater and various size, and either of similar, or of very different figure, also present analogous motions in like circumstances.

"I have formerly stated my belief that these motions of the particles neither arose from currents in the fluid containing them, nor depended on that intestine motion which may be supposed to accompany its evaporation.

"These causes of motion, however, either singly or combined with others—as the attractions and repulsions among the particles themselves, their unstable equilibrium in the fluid in which they are suspended, their hygrometrical or capillary action, and in some cases the disengagement of volatile matter, or of minute air bubbles—have been considered by several writers as sufficiently accounting for the appearances. Some of the alleged causes here stated, with others which I have considered it unnecessary to mention, are not likely to be overlooked, or to deceive observers of any experience in microscopical researches: and the insufficiency of the most important of those enumerated, may, I think, be satisfactorily shown by means of a very simple experiment.

"This experiment consists in reducing the drop of water containing the particles to microscopic minuteness, and prolonging its existence by immersing it in a transparent fluid of inferior specific gravity, with which it is not miscible, and in which evaporation is extremely slow. If to almond oil, which is a fluid having these properties, a considerably smaller proportion of water, duly impregnated with particles, be added, and the two fluids shaken or triturated together, drops of water of various sizes, from 1-50th to 2000dth of an inch in diameter, will be immediately produced. Of these, the most minute necessarily contain but few particles, and some may be occasionally observed with one particle only. In this manner minute drops, which, if exposed to the air, would be dissipated in less than a minute, may be retained for more than an hour. But in all the drops thus formed and protected, the motion of the particles takes place with undiminished activity, while the principal causes assigned for that motion, namely, evaporation and their mutual attraction and repulsion, are either materially reduced or absolutely null.

"It may here be remarked, that those currents from centre to circumference, at first hardly perceptible, then more obvious, and at last very rapid, which constantly exist in drops exposed to the air, and disturb, or entirely overcome the proper motion of the particles, are wholly prevented in drops of small size immersed in oil—a fact which, however, is only apparent in those drops that are flattened, in consequence of being nearly or absolutely in contact with the stage of the microscope.

"That the motion of the particles is not produced by any cause acting on the surface of the drop, may be proved by an inversion of the experiment; for by mixing a very small proportion of oil with the water containing the particles, microscopic drops of oil of extreme minuteness, some of them not exceeding in size the particles themselves, will be found on the surface of the drop of water, and nearly or altogether at rest; while the particles in the centre, or towards the bottom of the drop, continue to move with their usual degree of activity.

"By means of the contrivance now described for reducing the size, and prolonging the existence of the drops containing the particles, which, simple as it is, did not till very lately occur to me, a greater command of the subject is obtained, sufficient perhaps to enable us to ascertain the real cause of the motions in question.

"Of the few experiments which I have made since this manner of observing was adopted, some appear to me so curious, that I do not venture to state them until they are verified by frequent and careful repetition."

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6. *Functions of the different parts of the Ear.*—The thirteenth volume of Kastner's Archives contains a memoir by Dr. Ch. L. Esser, on this subject. The author has made numerous experiments which have conducted him to the following results:

The *cartilage of the external ear* seems to contribute little to rendering sounds more clear, but seems to augment their force not only by reflecting into the auditory canal a part of the sonorous rays, especially those that fall into the concha, but also by means of vibration which the sonorous rays produce in it, and which it transmits to the tympanum.

The *bones of the head* contribute no less than the cartilage to the propagation of sounds. This propagation does not depend solely on the nerves, as was thought by Treviranus, Swan, &c.; for a watch applied to a swelled cheek ought to produce sounds as clear through the medium of the fascial nerve as if applied on the zygomatic arch, which is not the case. The os occipitis is better fitted for propagation of sounds than the bones of the anterior parts of the head, which depends on its connexion with the labyrinth, and its nearness to the mastoidal cells. The use of these cells is not to prevent an echo in the internal ear, as M. Treviranus supposed; that function devolves solely on the eustachian tube. In many animals, the bones that surround the external ear are disposed so as to favour, in a high degree, the transmission of sounds, and they offer compensation for the absence of an external ear.

The external auditory canal is evidently the part which contributes most to the concentration and transmission of sounds to the membrana tympani.

The membrana tympani is made to vibrate by the sonorous rays that reach it: nevertheless, this is not the only use of the membrane, for the sonorous vibrations not only may reach the ear without the aid of the membrana tympani, but may even reach it with greater strength. It serves to protect the ear from external injuries.

The eustachian tube is the chief auxiliary to the membrana tympani, and fulfils four different functions.

1. It allows the air contained in the cavity of the tympanum to be in a state of equilibrium with the external air. If this equilibrium be lost, certain anomalous sensations are experienced, such as tinkling and buzzing of the ears. If the quantity of air in the cavity be augmented by strong expirations, then too strong a pressure on the membrane of the tympanum takes place, as well as on the other parts of the cavity, particularly the foramen rotundum: this pressure produces buzzing, which decreases in proportion as the atmospheric equilibrium is restored through the eustachian tube. If the air of the cavity becomes rarefied, and the eustachian tube closed by spasm, then the external air pressing on the membrane finds its way through the pores of that organ, and thus produces the tinkling of the ears.

Both these phenomena disappear as soon as the equilibrium is restored in the cavity, and this may be effected by forcing the air along the eustachian tube by breathing with the nose and mouth closed, or by introducing the end of the little finger deeply into the external meatus, and withdrawing it by degrees, making at the same time pressure against the upper surface of the canal. In this way a vacuum is formed, the membrane is brought back towards the external meatus, and the eustachian tube gives passage to the air that presses into it from the fauces. This explanation manifestly can only apply to the occasional occurrences of buzzing, &c. Chronic examples of these affections depend on cerebral congestions or anomalous actions of the nerves.

2. The second function of the eustachian tube is to admit of the occurrence of vibrations in the cavity of the tympanum, which could not be the case if it were entirely closed.

In cases of deafness occasioned by obliteration of the eustachian tube, perforation of the membrane becomes a means of cure, by re-establishing the communication with the external air.

The idea that the sides of the tube are constantly in contact with each other is incorrect.

3. The tube prevents confused vibrations of the air of the cavity, by giving them a passage outwards.

4. Finally, it serves to lead into the posterior nares the mucus secreted into the cavity and on its own surface.

The *small bones of the ear*, by means of their muscles, are capable of rendering the tympanum more or less tense; but it is difficult to conceive why, and how, this effect takes place. Their influence on the sense of hearing is not very remarkable. They serve to transmit the sonorous vibrations of the membrana tympani to the foramen ovale, although this is not their sole use.

The *labyrinth*, whose anatomical history is sufficiently understood, is still, and will probably continue to be, the obscurest part of the apparatus of hearing, as relates to its physiology. The experiments of Weber leave it a doubtful question whether the lymph of Cotugni exists during life, or is a production occasioned by the death of the animal.

The *vestibule*, or the membranous bags which represent it in certain animals, and the semicircular canals, appear to contribute most to the sense of hearing, but it is difficult to say in what manner. Some facts in comparative anatomy seem to show that the principal use of the semicircular canals consists in strengthening the sounds. They are larger in animals whose external ear is less favourably formed or wholly wanting. Large semicircular canals are generally accompanied with a small cochlea, and *vice versa.*

The *cochlea* appears to be of less importance than the semicircular canals; for it soon disappears in the descending scale of animals, and birds only possess a rudiment of it. Its use appears to be, to offer a large surface to the sonorous vibrations, and to strengthen by concentrating them.

The act of distinguishing different objects is a purely intellectual function, which we must not seek for in any particular parts of an organ of sense. This power has been supposed to reside in the cochlea; but if its development were in every case to be regarded as a measure of this distinguishing power, the following order might be established:—The cabiais and porcupine, whose cochlea has three turns and a half; the dog and fox, with three turns; man, the cow, the hog, and cat, with two and a half turns; the horse and the dolphin, with two and a quarter; and the hare, with two turns. Birds would occupy the lowest rank in this series. Such facts need no comments.

The part which the *acoustic nerve* plays in the sense of hearing is undoubtedly of great importance, but its manner of acting will always remain an impenetrable mystery.

The author of this interesting memoir finally arrives at the conclusion that all parts of the auditory apparatus concur in the act of sensation; but the sense of hearing itself is not explicable by means of these parts, for, like all the other senses, this is purely intellectual. The soul alone sees and hears, the rest is both blind and deaf.—*Bulletin des Sciences Médicales, April,* 1828.

7. *Case of Hernia of the Brain.* By Dr. Pierquin.—Rose ——, aged twenty-six years, of a lymphatic temperament, feeble constitution, and small stature, with blue eyes, light hair, was a servant in Romans, in the department of Drôme. When France was invaded by the enemy, the little town of Romans suffered greatly from the brutality of the soldiery. Some women were violated, among whom was the subject of this case. A short time after the attempt upon her person, Rose observed a white discharge, the existence of which she was afraid to communicate to any one. Her health grew worse daily, until at length she became a prey to constitutional syphilis. After having suffered the most excruciating, deep-seated and cephalalgic pains, she entered the hospital, at which time she had a venereal caries about the middle portion of the cranium. All the remedies usually employed in similar cases proved ineffectual. The caries increased daily, and the sanies discharged from it was so fetid that the patient suffered almost as much from it as from the disease. All the senses were unimpaired except that of smelling, and it could not be ascertained whether this resulted from the progress made by the disease, or from the odour of the discharge. It was in this desperate situation she was sent to the General Hospital at Montpellier, which she entered in 1821. The case, considered as the consequence of caries from a neglected venereal affection, offered in itself nothing highly interesting, but it was different when viewed in relation to its bearing upon the physiology of ideology. We at first endeavoured to ascertain the influence of the external air upon the circulation. During the evening we counted 120 pulsations, and from 98 to 100 during sleep. This number was varied by the agreeable or disagreeable nature of the dreams, as was ascertained upon the patient's waking: under the two last circumstances, the protrusion of the cerebral pulp became stronger, whilst it did not exist at all in undisturbed sleep. The first of these phenomena took place equally whilst awake, just as if, in the generation or conception of ideas, the brain was struck with a state of orgasm approaching a genuine erection. During quiet sleep the cerebral subsidence was such, that the organ seemed to repose upon itself, at which time the encephalic pulp withdrew entirely from the lips of the wound. Often at the dressing hour the patient was not yet awake, and it became necessary to rouse her from ordinary long and sound sleep: the difficulty attending the passage from this cerebral inertia to activity, was marked by such a state of orgasm, that it became necessary at each dressing to take off a considerable portion of the pulp of the brain, an operation always unattended with pain, and unperceived by the patient, who seemed to suffer from it neither moral nor physical inconvenience. So many

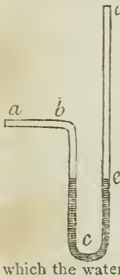
observations were doubtless sufficient to prove that the brain is the ideologic centre. But, in addition to these, we very often subjected the patient to another conclusive experiment. Whilst placed on her seat during the dressing, we entered into a conversation upon some topic that might fix her attention. The moment she became engaged, the oscillatory movements of the brain became at once more rapid and stronger; pressure was now applied upon the brain as strongly as possible, and in an instant the patient lost the use of all her senses, could no longer form an idea, ceased to speak, terminating the conversation suddenly in the middle of a word, which she finished when we removed the compression. The same phenomena took place in regard to conversation commenced, the patient completing the phrase when we ceased to press upon the ideologic organ. These different experiments were not only unattended with the slightest pain, but were unknown to the patient, who never perceived the interruption to her intellectual existence, which we occasioned at pleasure. From this curious case, we may conclude that the brain is the central organ of the sensations, and that without it there would be neither attention, perception, or memory.—*Journal des Progrès, Vol. XVI.*

8. *Case of Poisoning of the Fœtus by Opium taken by the Mother.*—In our last number we published some interesting experiments by Professor Mussey, showing the connexion between the mother and fœtus; the following case, related by Dr. Doutrepont, of Würzbourg, in the *Gemeins. deutsch. Zeitschr. für Geburtsk. Band. I.* is interesting in relation to the same point. A woman, aged 33, in the eighth month of her third pregnancy, took, with a view of committing suicide, eight ounces of opium; in an hour, sensibility and mobility were almost extinct. Her respiration was oppressed, but she had no disposition to sleep. An emetic made her throw up a large quantity of opium; soon afterwards, a severe febrile reaction took place, during which, the fœtus was perceived violently agitated in the uterus. Encephalitis succeeded, and was successfully treated by detraction of blood, cold applications, &c. All the symptoms abated the third day, except the movements of the fœtus, which became more and more violent; finally, labour came on, and in the intervals of the pains, strong movements of the infant were perceived. After two hours, the infant was born; it had immediately afterwards a convulsive paroxysm, and some minutes afterwards another, which terminated in death. On examination, no malformation was observed, but the *brain and spinal marrow were inflamed.*

9. *On the Action of the Arteries in the Arterial Circulation.* By M. Poiseuille.—By a series of well-devised, and apparently accurate experiments, M. P. has arrived at the unexpected result, that the force of the blood in the arteries will support a column of mercury of the same height with whatever part of the course of the arterial circulation the column is placed in connexion—whether for example it is connected with the origin of the carotid, or with a branch derived by repeated subdivision from the crural artery. And consequently he concludes that the force with which a molecule of blood moves is the same throughout the whole arterial circulation. Following out these researches, he proceeds to inquire in what manner the original impulse communicated by the heart, is transmitted unimpaired to distant parts of the circulation, notwithstanding the retarding tendency of friction, and the yielding of the parietes of the vessels.

His first object here was to ascertain whether the arteries are dilated by the stroke of the heart, and impulse communicated to the blood, and what the amount of the dilatation may be. It is well known that by most physiologists a very extravagant idea used to be entertained of the amount of their dilatation; on the other hand, that the later researches of Parry, and other experimentalists have assigned exceedingly narrow limits to it; nay, that by one eminent physiologist, Bichat, it has been denied altogther. M. Poiseuille has determined the point by means of a very satisfactory set of experiments with an apparatus of his own invention, and has ascertained that dilatation is effected; but that it is so small as certainly to be indistinguishable in an artery by the unaided senses. This apparatus cannot be thoroughly described without a diagram; it will be sufficient, therefore, for us to mention, that it is so contrived as to contain about eight inches of the carotid artery of the horse in a vessel filled with water, and made water-tight, except at one point, from which a small horizontal glass tube issues, about an eighth of an inch in diameter. At each contraction of the animal's heart it was found that the water in the small tube advanced two inches and eight-tenths, and that it retired to its former place during the diastole of the heart. The diameter of the artery was seven-twentieths of an inch. Hence it may be calculated that at each pulsation its capacity was increased by about a thirtieth part.

Having ascertained this fact, M. Poiseuille goes on to inquire, whether the power which is expended by the blood in causing this dilatation is restored by the subsequent contraction of the artery. For this purpose a portion of the common carotid artery of the horse, ten inches long, and seven-twentieths of an inch in diameter, taken immediately after death, was connected with the end *a*, of the tube, (see Figure;) a stop-cock, however, being previously fitted between *a* and *b*. The other end of the artery was fixed on a tube of analogous construction, different in fact only in so far as the limb *c d* was inclined at about half a right angle instead of being vertical, and the stop-cock was placed near the end *d*. The whole of the first tube, the artery and part of the descending limb *b c* of the second tube was filled with water, a little mercury then filled the curvature of the second tube, and the ascending inclined limb of that tube above the mercury was filled with water. The stop-cock of the last tube being closed, and that on the first tube being opened, mercury was poured into the former by its end *d*, till the pressure on the artery amounted to ninety-five millimetres or about 3.8 inches. The stop-cock of the first tube was then closed and that on the second tube was opened; upon which the water rose instantaneously in the latter, a portion flowed out at the top, and the remainder then sank a little, and assumed a fixed level. On making the necessary computations, M. Poiseuille found that the point to which the mercury was raised in the second tube at the moment of the contraction of the artery indicated an elevation of one hundred and ten millimetres or 4.4 inches. Hence *the power with which the arterial coats contract upon themselves after being dilated, exceeds that which is expended in dilating them.* In the present experiment the excess was equivalent to six-tenths of an inch of mercury, or three-nineteenths more than the dilating force. In three other experiments, the excess of the column of mercury was 9-20, 14-20, 19-20 of an inch. When repeated with the artery of an animal which had been killed four days before, the excess was less than 4-20. It is evident, therefore, that whatever force the blood after issuing from the heart loses in consequence of its acting on yielding vessels, is completely restored by the elastic contraction of their parietes.—*Edinburgh Medical and Surgical Journal, July,* 1829, *from the Journal de Physiologie, Jan.* 1829.



10. *Experiments proving that the Nervous Tissue possesses the Property of Developing the Galvanic Fluid.* By Dr. Louis Beraudi, of Turin.—The numerous experiments of Wilson Philip, Edwards, Vavasseur, Aldini, Magendie, Krimer, and Wienhold, establish the fact that the nervous system developes galvanic phenomena. Dr. Beraudi has instituted a series of experiments for the purpose of collecting the galvanic fluid that is thus formed, that no doubt may any longer attach to so curious a fact. The following are the results of these experiments:—

1st. Dr. B. exposed the right crural nerve of a living rabbit, the temperature of the apartment being raised to 15° Reaumur. After having carefully removed all the blood, three small and very fine steel needles were introduced into the nerve: they were separated by a small stick of sealing-wax placed horizontally. The animal evinced great pain, and at the end of a quarter of an hour it was found that the needles had not acquired the power of attracting small pieces of paper. The same needles were again introduced into the nerve, and, upon being withdrawn at the expiration of a quarter of an hour, as before, each needle was found slightly to attract small particles of rust of iron, whilst the bits of paper remained unmoved.

2d. The same experiment was repeated, on the same day, on another rabbit, but without a similar result. It had been observed that the development of the electric fluid diminished in a direct ratio to the slowness of the circulation. Pulmonary insufflation was therefore had recourse to, and at the expiration of ten minutes the magnetic property of the needles was very manifest. From this fact Dr. B. concluded that the strength of this property of the needles, produced by the nervous tissue, was in proportion to the greater or less quantity of blood exposed to the contact of the air. This remark was communicated to Professor Rolando, who recommended Dr. B. to vary the experiment, by causing the animal to respire different gases.

3d. The apartment being of the same temperature as above-mentioned, it was found that, by introducing into the lungs oxygen, hydrogen, and azote, the magnetic property developed in the nerve was very powerful after the insufflation of the first of these gases, weaker from that of the second, and not at all apparent from that of the azote.

4th. After having divided the spinal marrow of a rabbit, between the third and fourth cervical vertebræ, needles were introduced as before into the crural nerve; but in neither was the magnetic property detected, until a certain quantity of oxygen had been introduced into the lungs: it then was very manifest.

5th. The right optic nerve of a rabbit was exposed, and one needle introduced into it; which was withdrawn in eight minutes, and exhibited no magnetic property. The animal was then made to respire oxygen gas, by means of a bladder which was filled with it, but still no magnetic effect was produced. Neither hydrogen nor azotic gas produced any effect. At the expiration of an hour, the same needle was introduced into the crural nerve of the same rabbit. The animal was again made to respire oxygen gas, and a weak magnetic property was then perceptible in the needle; which was no longer developed when the experiment was repeated after having divided the spinal marrow at the part above-mentioned.

6th. The same experiment was repeated, in presence of Professor Rolando, upon the olfactory nerves, but without any result.

7th. A ligature was placed upon the crural nerve of a rabbit, into which needles were introduced *below* the ligature. No galvanic phenomena were produced. The same was also the case after the division of the nerve.

8th. Dr. B. after the manner of M. Vavasseur, endeavoured to ascertain whether this property, which was imparted by the nerve, could be communicated at any distance. To determine this fact, the crural nerve of a rabbit was laid bare and divided; and the extremities of the nerves then separated to a distance of about four lines. A needle was placed in the inferior portion of the nerve, and it was found that it had, in a minor degree indeed, acquired the magnetic property. This result confirmed Dr. B in the opinion that the nervous influence is developed at some distance, which he had before presumed from finding the magnetic property of the needle diminish and disappear from the inspiration of hydrogen and azote.

As all philosophers believe that the galvanic fluid is capable of imparting to iron a magnetic property, and as the identity of these two fluids is admitted, the following results are deducible from the above experiments:—

1. Electricity developes itself in the nervous system.
2. The fifth and sixth experiments confirm the theory of Prof. Rolando.

3. Respiration appears to have considerable influence upon the development of the galvanic fluid in the nervous system.

4. It may be presumed that the galvanic fluid does not emanate from every part of the nervous system, but perhaps from the cerebellum, as Mr. Rolando supposes.

Lastly. That neither the olfactory nor optic nerves concur in the development of that fluid.

Dr. Beraudi does not claim the merit of first conceiving these experiments. He is aware that Beclard had before ascertained and announced, that a needle becomes magnetic from being introduced into a nerve.—*Nouvelle Bib. Méd. from the Annali Univer. di Méd. May*, 1829.

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11. *Case of Twins in which one Fœtus was Flattened by the Pressure of the Other.*—Dr. Defermon communicated this case to the Medical Society of Emulation of Paris. The child first born was healthy, and well developed; with the placenta of this child, and adhering to it, there was delivered a mass, which proved to be another fœtus with its secundines. The placenta of this second child was yellowish-white, elastic, rugose on its uterine surface, by which it had adhered to the uterus, as could be seen by the remains of a few vessels, which were still visible on its surface: its fœtal surface was smooth, and covered with the membranes of the fœtus, which formed a flattened sac, projecting a little beyond the fibrous placenta. On opening this sac it was found to contain a flattened fœtus, which in form resembled the ginger-bread men sold in cake shops; it appeared to have been arrested in its growth at the term of three months. The duration of the pregnancy, according to the calculation of the mother, was ten months and a half. Six weeks after the mother supposed herself pregnant, she observed after fatigue some spots of blood on her linen; she was examined by Dr. Defermon, who found the neck of the uterus slightly dilated, and fearing an abortion, the patient was confined to her bed for eight days, which prevented any further accident. The woman was healthy, and her husband during the early periods of pregnancy, had his usual intercourse with her.—*Bulletin des Sciences Médicales, July*, 1829.

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12. *Case of Twins in which one Fœtus was Healthy, and delivered at full term, the other Dead, and but little developed.*—Dr. Colombe communicated this case, which resembles the preceding, to Dr. Defermon. Dr. C. delivered a woman in 1827, whose accouchement terminated naturally; but the size and weight of the after-birth having attracted his attention, he was induced to examine the parts, and found that the placenta was formed of two distinct parts, one red, well-developed, gorged with blood, and which belonged to the child which had been just born; the other portion of the placenta, intimately connected with the preceding, was much less voluminous, more firm, yellowish-white, and resembling gray cellular tissue. These two placentæ had each its membranes; that which had enveloped the infant, was ruptured, as usual, and presented nothing remarkable. The membranes of the altered placenta were whole, and enclosed a small fœtus, which appeared to have attained the size of a fœtus of four months. The membranes contained a small quantity of fluid; the fœtal surface of the amnion was covered with small transparent granulations, which were very numerous near the placenta. The fœtus was deformed, flattened; its skin shrivelled, pale and a little livid. The mother was thirty-four years of age, had had many children before, and all her previous accouchements were natural. During her last pregnancy, at about the third month, in consequence of fatigue, she had been attacked with loss of appetite, nausea, and afterwards pains in the abdomen, hips, and pelvis, which required a few days repose. The symptoms then disappeared, and nothing further occurred during gestation.—*Ibid.*

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13. *Cyst in the right Corpus Striatum, with complete Paralysis of the Arm, and partial Paralysis of the Leg of the Left Side.*—Physiologists have attributed the

movements of the superior extremities to the influence of the optic thalami; in the two following cases, however, disease was limited to the corpora striata, and yet there was complete paralysis of the arm. CASE I. The patient was a man aged sixty-one; he had had complete incapability of motion in the left arm, but without any affection of the mouth or tongue; he spoke with ease, but every question made him shed tears. He died of some disease foreign to the cerebral affection. On examination, an apoplectic cyst, was found in the right corpus striatum; this cyst was lined with a membrane and contained a yellowish fluid.—*Nouv. Bib. Méd. Sept.* 1827, *from La Lancette Française.*

14. *Softening of the Left Corpus Striatum, with complete Paralysis of the Arm, and slight paralysis of the Leg of the Right Side.*—CASE II. A woman aged sixty-one, affected for many years with a disease of the heart, was suddenly attacked in May, 1829, without any known cause, and without having had previously any headache, with a violent giddiness, which made her fall to the ground. From that time she had partial loss of intelligence, paralysis of motion and sensation, much greater in the right arm than in the leg, the latter performing some movements. This condition was ameliorated by bleeding and purgatives; but on the 19th of May she again lost her intelligence, the paralysis increased, but was still greater in the arm than leg. She died apparently more from the affection of the heart than from that of the brain. On examination there was found a circumscribed softening of the left corpus striatum, with bloody infiltration; the neighbouring parts were perfectly natural.

We refer to the two following cases as interesting in relation to this subject. —*Ibid.*

15. *Cyst in the Right Optic Thalamus—Paralysis of the Left Arm.*—In the two following cases there was paralysis of the arm with disease of the thalami optici. CASE I. A man aged sixty-five, had a partial paralysis of the left arm only, which came on suddenly, preceded by loss of intelligence. He had afterwards general trembling, and died suddenly without it being suspected that his end was near. On examination, an apoplectic cyst, limited to the right optic thalamus, appeared to explain the paralysis of the left arm; there was softening of the superior part of the spinal marrow, which accounted for the trembling in the limbs; the sudden death was probably owing to serous apoplexy.—*Ibid.*

16. *Paralysis of one side with Effusion in the Optic Thalamus.*—CASE II. A woman, aged about sixty, suddenly lost her intelligence, but not entirely, since she answered, though with difficulty, to questions that were put to her. Her mouth was drawn slightly upwards, and to the right; her left arm was completely paralysed; she could partially move her left leg; there was contraction of the muscles of the side of the neck, and of course lateral flexion. This woman had been deaf for some years, and during the whole time she suffered from the cerebral hæmorrhage, she could hear better than she had been able to do for some time. On examination, the right optic thalamus was found torn, with an effusion of blood in it; the more fluid parts of the blood had flowed by the natural opening into the middle and left lateral ventricles.—*Ibid.*

PATHOLOGY.

17. *Hydrophobia.*—One of the late Numbers of *Graefe and Walther's Journal*, contains an account of some interesting experiments on rabid animals, by Dr. HERTWICH, professor at the veterinary school at Berlin. The following are the principal results that he has obtained.

1. Of 59 dogs who were inoculated, 14 became affected with real rabies.

2. In those cases where the inoculation failed, no assignable cause of the failure could be discovered. There exists, accordingly, a peculiar disposition for the virus of rabies, as for that of other contagious diseases. (A mastiff, four years old, went through regular series of experiments without any effect being produced; while seven other dogs, who were inoculated with him, and in the same manner, became rabid. Some dogs were several times inoculated before any contagion took place; in others, this effect was observed after the first experiment.)

3. It appears, accordingly, that *in cases of doubtful rabies, one or two accidental or artificial inoculations are not sufficient to serve as negative proofs of the existence of rabies.*

4. No communication of the disease ever took place by the perspiration; the contagious matter of rabies cannot, therefore, be of a volatile nature.

5. *Its vehicle is not only saliva and the mucus of the mouth, but also the blood, and the substance of the salivary glands.* It does not appear to exist in the nervous pulp.

6. The power of infecting exists at every period of the confirmed disease, and *even for about twenty-four hours after the death of the animal.*

7. The virus of rabies *appears to be inactive if administered internally*: of 22 dogs who were made to swallow it, none took the disease.

8. The application of saliva to fresh wounds appears to be as often followed by rabies, as the bites of rabid animals.

9. It is, consequently, beyond all doubt, that the disease is neither produced by the lesion, according to Girard's opinion, nor by the fear of the patient, as has been repeatedly asserted.

10. The opinion of Bader and Capello, that in dogs who had become rabid from the bite of an animal primarily affected with the disease, the saliva did not contain the contagion; and that it existed only in primary rabies, has been proved, by several experiments, to be erroneous. (This perfectly agrees with Magendie's experiments, who, having inoculated a dog with saliva of a patient affected with hydrophobia, the animal became rabid after a month, and bit two others, who were also infected, from these last, no further contagion was observed.)

11. During the period of the inactivity of the virus, there is no morbid alteration observable, either locally or in the general health of the dog thus infected, nor does the lower surface of the tongue ever exhibit vesicles. There exist, accordingly, no precursory symptoms as in other contagious diseases.

12. The disease generally breaks out within fifty days after the inoculation, or the infliction of the wound; Dr. Hertwich never observed it occur at a later period.

13. Inoculation or infection from animals affected with fierce rabies, very often produces the other modification of the disease, and *vice versâ;* they are, consequently, only different forms of one and the same disease.

14. It is an erroneous opinion, that healthy dogs were able to distinguish those affected with rabies by the smell; this is not the case, nor do they abhor food mixed with the secreta or excreta of rabid dogs.

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18. *Angina Pectoris.*—Every dissection that can throw light upon the pathology of this disease is interesting; we therefore insert the following case, which is denominated angina pectoris by the reporter, though we are not satisfied that it deserves that title.

Josephine Vala, æt. 34, of a florid complexion, was admitted into the Hôtel Dieu, Nov. 14th, having been about four months before, without any obvious cause seized with palpitations, violent intermitting pain in the left side of the thorax, extending over the left arm, and frequent attacks of suffocation and syncope. These symptoms being treated by blood-letting and antiphlogistics, gradually subsided, but had returned a few days before her admission, at which time she was found in the following state:—The intermitting pain on the left side was very violent, and accompanied by suffocation; the pulsations of the heart were very loud; the pulse was hard and frequent; the patient seemed very low-spirited, and complained of restlessness, head-ache, and the most oppressive fainting sensation. Having been several times bled, she seemed to be somewhat relieved; but the attacks of syncope, pain, and suffocation, became more frequent, &c.; and in the night of the 20th, she suddenly started up, vomited several times, and died in a few minutes. On examination of the body, the brain was found somewhat injected, but healthy; the lungs loaded with blood, the left ventricle of the heart hypertrophic, and its substance of a paler colour than usual; the other parts of the heart were healthy, but the aorta was considerably diseased; its internal membrane being almost entirely destroyed, the muscular coat of a villous appearance, and presenting numerous yellow spots surrounded by a white margin. The principal arterial branches were healthy.—*La Clinique.*

19. *Inflammation of the Veins.*—In our last number we gave an analysis of the interesting paper of Mr. Arnott on the secondary effects of inflammation of the veins; but as his researches do not throw any light on the question, whether inflammation of venous tissue is inevitably and invariably a fatal disease; and as this is a point of some moment to determine, the following facts, drawn from other sources, and for which we are indebted to our esteemed cotemporary, the *Edinburgh Medical and Surgical Journal,* will be considered interesting. In appreciating the value of the following facts, in determining the question whether the records of art contain any authentic case in which, after inflammation was fully established in the interior of a vein, recovery had taken place, it is almost unnecessary to observe, that to demonstrate necroscopically the effects of inflammation, is to demonstrate the previous existence of that process.

" The first fact of this nature is found in the *Mantissa Anatomica* of Joannes Rhodius, a physician of Padua, who distinguished himself in the collection of medical and anatomical cases in the 17th century. In this case, in a person who laboured under violent epigastric pulsation during life, the *vena cava* was filled with matter termed adipose and medullary, which appears to have been coagulable lymph, and which is said to have produced adhesion of its sides.* Thomas Bartholin in like manner mentions generally a case of obliteration of the *vena cava* near the heart in a person who died rabid. Among other instances of morbid changes observed in veins recorded by Morgagni, one mentioned in his 56th epistle in the person of a lame woman of forty, deserves attention. In this the parietes of the left iliac vein, which, with its branches, was shrunk and pale, were united by means of a polypous fibrous mass, which was soft and lacerable, and which appears to have been coagulable lymph secreted by previous inflammation.† Haller in like manner records a case in which the internal jugular vein of the left side contained a polypous fibrous pulp, which not only filled the cavity of this vessel, but extended into the transverse branch, which communicates with the external jugular vein. In this case, however, it must not be denied that obliteration had taken place not only in the vein, but in the carotid artery, in consequence of the pressure of an aneurismal tumour; and it may be argued that the matter in the interior of the vein was not the product of inflammation, but merely coagulated blood, the effect of stagnation.‡ If, therefore, the evidence of this fact is questionable, greater importance must be allowed to another, in which, the same observer informs us, he found the *vena cava* between the renal veins, and the iliacs adhering so as to leave no cavity except what was occupied by a fibrous, fleshy, polypous, and indurated mass. As in this instance there was no aneurism or tumour, which could compress the vein, and cause stagnation of its contents as in the former, Haller candidly confesses his inability to explain the reason of the obliteration.§ It is by no means unreasonable, nevertheless, to infer, as cases subsequently to be mentioned show, that the fleshy substance was coagulated lymph organized, secreted at a former period by the inflamed inner membrane of the tube.

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* Mantissa Anatomica Joannis Rhodii, Obs. 21.

† Epistola Anatomica-Medica, lvi. Art. 10.

‡ Observ. xxiii.

§ Observ. xxiv.

"Much more unequivocal examples are those recorded by Dr. Baillie and Mr. Wilson in the first and third volumes of the Medical and Chirurgical Transactions. In the former case, the obliteration which had taken place from the emulgent veins to the entrance of the *venæ cavæ hepaticæ*, is ascribed to effusion of lymph and consequent adhesion; and in the latter, though in the *vena cava* there were found four ounces of purulent matter, a considerable quantity of coagulable lymph below the entrance of the hepatic veins united the opposite sides of the vessel, and prevented, it is said, the purulent fluid from proceeding to the heart. In the first case it is evident that the individual had not died from the inflammation of the vein; in the second, it is at least rather doubtful. But even this doubt is diminished, if not entirely removed, by several of the cases recorded by Hodgson, Breschet, Bouillaud, Andral, and Reynaud, in which death did not take place in consequence of the immediate affection of the vein, but in consequence either of the disease induced by that alteration, or of some disorder entirely different. It must not indeed be denied that the evidence requisite to establish the point is scanty, and by no means precise; and it may be premature to lay it down as a certain fact, that venous inflammation is not in all instances fatal. But, so far as the evidence goes, it may be at present inferred, that in some cases recovery appears to have taken place, and that this favourable issue is more likely to occur when the inflammation is confined to the effusion of lymph, than when it proceeds to the secretion of purulent matter."

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20. *Aneurism of the Abdominal Aorta.* By CHARLES HARLAND.—"Adam Atherways, æt. 38, of a naturally athletic frame, was admitted into the Stafford County Infirmary some time ago, under the care of one of the physicians of the institution. The predominating symptoms appeared more indicative of dyspepsia, or functional derangement, than of organic malformation, or the existence of any signal disease; save that, after taking food, nausea became so oppressively urgent as to render him totally incapable of retaining the ingesta on his stomach. His countenance was pallid; the pulse little exceeded the natural standard, and was without intermission or any marked character; the belly habitually torpid, and he had a constant sensation of weight, hardly amounting to pain, throughout the abdomen, which was slightly tumefied. Neither pulsation nor fluctuation was recognised. He generally lay in a bent position, the supine being uneasy, a circumstance which gave the idea of pyloric disease. These were accompanied with some other symptoms, but none of intrinsic importance. Notwithstanding this, however, general attenuation was progressive, and he died, leaving no positive cause to be alleged for his dissolution.

"On opening the abdominal cavity for the post mortem examination, a large clot of grumous blood was seen, extending from the left hypochondriac through the umbilical, and terminating low down in the left iliac region. The ascending and transverse arch of the colon was extremely distended with gas and fæcal matter. The descending portion was compressed by a tumour against the parietes of the abdomen; it was necessarily very small, its calibre not being nearly so large as the duodenum. The pancreas and spleen were much altered in shape and size; the latter was analogous to that morbid state resulting from inflammation, which Pemberton has described the liver occasionally to assume: 'the structure being destroyed, so that it resembled a bag containing coagulated blood.' The psoas magnus also was much diminished by absorption, produced from the pressure of the adjacent tumour. The stomach, liver, and other viscera, were of healthy appearance. On opening the tumour, which was enveloped in a thin and glossy sac, the striæ occurrent in aneurism were palpable; and as the coagula were broken up with the greatest difficulty in the most depending part, their deposition must, judging from this fact, have been of long standing. On examining the aorta, at the distance of about two inches from its exit through the crura of the diaphragm, it was seen perforated on its anterior surface one inch and a half in length, and about three inches in breadth; for a considerable space round which the coats of the vessel were diseased: nothing else was prominently remarkable. The contents of the thorax were healthy, and the arterial system presented no other disease, such as is usually the case when one aneurism is found. What appears remarkable in the above case is, that nothing happened to lead to the suspicion of the existing disease."—*Lond. Med. Gaz. Aug.* 1829.

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21. *Voracious Appetite—Absence of Gall Bladder.*—M. de L—— of large stature and robust constitution, had always been remarkable for his great appetite. He was above sixty years of age when he was consulted by Dr. GAULTIER, by whom his case is related. At this time he was very fat, had much colour, although his skin generally had rather a yellow tinge; his belly was very prominent. In the morning he could scarcely wait till 9 o'clock for his breakfast; he dined at 2, and took a hearty supper in the evening. His habits may, in one sense, be said to have been austere, for although he eat enormously, yet he did not indulge in sensuality. Immediately after eating he became heavy, his face of a deep red, his head dropt upon his bosom, he fell fast asleep, and continued in this state for about an hour, after which he was always impatient for the next meal. He lived a very regular life, and walked about two hours a day. Latterly he complained of pains in the right hypochondrium, and the corresponding side of the chest and shoulder; his complexion had become more yellow than usual, his physical strength diminished, and his gait was slow; he was also exposed to moral influences of a depressing nature. The practitioners whom he consulted suspected some disease of the liver, in consequence of which he was sent several successive seasons to Vichy. At length symptoms of pulmonary consumption supervened, under which he gradually sunk. The body was examined by M. Gaultier. There was considerable emaciation compared to the former *embonpoint*, nevertheless half an inch of fat remained over the chest and abdomen. There were two rather large, and several small collections of purulent matter under the integuments about the right side of the chest; and a fistulous opening at the verge of the anus, communicating with a considerable abscess in the vicinity of the rectum. There were several collections of matter in the lungs, none of which communicated with the bronchi. The stomach was immensely large, the muscular coat being very strongly developed. The intestines were very voluminous, especially the large, but contained very little feculent matter. The liver was large, but not out of proportion to the stature of the individual; and its structure was healthy. Notwithstanding the most minute examination, *no trace of a gall-bladder could be discovered, nor any thing which indicated the former existence of that viscus.* The duodenum adhered directly to the liver by very short and dense cellular texture. A biliary calculus was found in the intestine, opposite the situation where in the natural condition the opening of the ductus choledochus exists; but which, in this instance only led to a very short canal, (two lines and a half in extent,) which distributed itself immediately in the liver, without any of its branches running in the direction usually assumed by the ductus cysticus. The spleen was of the ordinary size, but extremely soft.

The narrator of the case asks, whether it be probable that the great appetite, and rapid digestion in this case, were owing to the bile being constantly transmitted to the duodenum, keeping it in a constant state of excitement, and thus sympathetically influencing the stomach. He also remarks that there are cases on record in which the ductus choledochus has entered directly into the stomach; and that in these also the appetite was voracious.—*Ibid, from the Journal Hebdomadaire.*

22. *Metastasis of Leucorrhœa to the Mouth.*—Dr. Wasserfuhr relates in *Rust's Magazin*, B. xxvii. the case of a young woman, the mother of several children, who had been affected for many years with an obstinate leucorrhœa. Dr. W. prescribed baths, laxatives, and at the same time a styptic injection into the vagina every morning, and at night an injection of a solution of corrosive sublimate. The third day the disease had entirely disappeared from its original seat, but a discharge commenced from the mucous membrane of the mouth, of the same character as the former discharge from the vagina; it was of the same consistence and colour and the same in quantity; the mucous membrane of the mouth was red, swelled, and very painful. By proper applications the disease was recalled to its former seat, and the discharge from the mouth ceased.

23. *Case of Hæmorrhage after Extraction of a Tooth from a hereditary hæmorrhagic disposition.*—Dr. Steinmetz relates in the twenty-seventh volume of *Rust's Magazin*, the case of a man, æt. 20, thin, cachectic, pale-featured, and of delicate complexion, who was attacked with obstinate hæmorrhage after the extraction of the first grinding tooth of the right side of the lower jaw. Dr. S. saw him the succeeding day, when the blood flowed in a continuous stream, and appeared to issue from the lacerated gum, not from the cavity from which the tooth-fangs had been extracted. An attempt was made to arrest the hæmorrhage by squeezing into the cavity a mass of charpie sprinkled with styptic powder, and directing the patient to compress it by keeping his jaw closed. But in two hours he complained that the blood began to trickle into his throat. The charpie was therefore renewed, being previously dipped in dilute sulphuric acid. This plan likewise failed; in a short time the blood began again to fill the mouth. It was again tried, however, but without success; two hours after the second pledget was introduced, the blood began to issue from the man's mouth and nose. The charpie was then soaked with concentrated sulphuric acid, and also sprinkled with styptic powder; and, in order to effect exact compression, *Lampe's* tourniquet for hæmorrhage from the tongue was applied to the jaw. During three days this dressing was changed every four or six hours, yet in the end without any advantage. The patient was then ordered likewise to take every other hour from forty to eighty drops of the acid elixir of Haller; and when this remedy had been persevered in for six-and-thirty hours the hæmorrhage ceased materially. For four days more, however, it returned every evening to such an extent as to induce the patient to resume the use of the acid pledgets.

The hæmorrhœal tendency in this instance was derived from the grandfather. Several times in consequence of a prick with a pin his grandfather was brought almost to the point of death by hæmorrhage. At last he was attacked with pulmonary inflammation after exposure to cold and fatigue. During this attack he had bloody sputa, though not to any great extent. But on the sixth or seventh day he was attacked with profuse epistaxis, which nothing could check, and which consequently proved fatal. The father had in his youth been likewise several times reduced to a state of extreme exhaustion through hæmorrhage produced by trifling injuries, and would have perished but for prompt medical assistance. At the age of sixty-five he had been free from the disease for ten years. The son, Dr. Steinmetz's patient, had been several times before seized with obstinate hæmorrhage from trifling causes. Three sisters were entirely free from the hereditary peculiarity; but they imparted it to their children. One of the children was, at the request of the mother, circumcised in presence of the relator, who had extreme difficulty in checking the flow of blood.

These facts confirm the statements of former authors—that the hæmorrhœal diathesis descends only to the male branches of a family—that it may be communicated to them through females, without these females having it themselves—and that it ceases in old age.

24. *Cerebral Congestion, with involuntary retrograde movement.*—M. D. ætat.

fifty-six, of sanguine temperament, and good constitution, had suffered two months previously from an inflammation of the chest; was attacked November 9th, with pharyngitis, which was treated by means of twenty leeches to the throat, emollient poultices, &c. &c. He had in the evening flushing of the face, slight injection and brilliancy of the eyes; strong, but not frequent pulse; hot skin, and sense of uneasiness in the occipital region, and difficulty in moving the neck laterally. During the night vertigo, stunning, and obscure pain of the head. He had had nocturnal emissions for five or six nights. He got upon his knees in bed for the purpose of making water, which brought on a tendency to fall backwards, which he avoided by holding to the bolster. He had constant erections, without emission, which symptom had come on when he went to bed, at nine in the evening, and lasted till seven next morning, when he got up. At this time he no longer presented the appearance of congestion about the face or eyes; but the skin in the occipito-cervical region was very much injected with tumefaction, but without tenderness on pressure. Pulse strong, but not frequent. M. D. in spite of the representations of his medical attendant, who wished him to keep his room, and submit to antiphlogistic treatment, walked a short distance, in doing which he was obliged to stop, in order to avoid falling backwards, and to resist the propensity he had to walk in the same direction; nay, he was unable to resist making a step back when he wished to have gone forwards. Arrived at the place of his destination, he experienced a repetition of the same symptoms, and made nine or ten steps in a retrograde direction, and would have fallen on his back if he had not been prevented by a piece of furniture in the room where he was. When he returned home, the same inclination continued. He was now got into bed; bled to the extent of eighteen ounces, and put on rigorous diet; two hours after which the symptoms disappeared, except that the cervico-occipital region, however, retained its tumefaction. He had a mustard foot-bath in the evening, and rested well after it. Next day all that remained of his complaint was some swelling about the back of the neck, and a difficulty in moving his head sideways. These likewise disappeared in three days.—*Journal de Physiologie.*

25. *Irritable Breast.*—Mr. TEALE considers it highly probable, that the affection usually known as the "irritable breast" is a neuralgic affection of the part dependent upon a morbid state of the lower cervical portion of the spinal marrow, and the following interesting case among others is adduced to support this opinion. "Mrs. ——, æt. 48, but without having experienced any change in the catamenia, of a healthy appearance, and mother of a large family, had suffered about seven years from a painful affection of the left breast. On examination it was found to be exquisitely sensitive to the slightest touch; it was somewhat increased in size, and irregularly indurated, having a knotty feel, and an obscure sense of tumours as if the glandular structure were enlarged at different parts. The integuments and cellular substance between the breast and clavicle, and towards the axilla, were thickened. There was a constant sense of uneasiness in the part, but her chief sufferings arose from its highly sensible state, which constantly exposed her to pain from the irritation of her dress, or any accidental contact. Her spirits were depressed, and an apprehension that the disease would prove cancerous, although she was repeatedly assured of the contrary, was a source of great anxiety. Leeches, evaporating lotions, and warm fomentations had been employed, and medical treatment had been particularly directed to the digestive organs; these means were occasionally productive of slight alleviation, but never of permanent benefit. The complaint varied in degree, being sometimes less severe for a few weeks, without any obvious cause for the temporary amendment.

"Whilst in this state, (September, 1827,) she became subject to pains in the scalp, and vertigo, attended with flatulence. These symptoms directed my attention to the spine, which on examination was found to be tender in several parts. The most painful vertebræ were the second cervical, the seventh cervical, and two upper dorsal. Leeches were applied to these parts, with considerable relief to the pains in the scalp and vertigo. Since that time she has been occasionally in the habit of applying leeches, a blister, or a sinapism, of her own accord, when there has been any return of uneasiness in the head.

"On making inquiry, (August 10th, 1829,) respecting the complaint in the breast, of which I had not heard any mention for several months, she tells me that from the time of her commencing the treatment by local applications to the spine, the affection of the breast has disappeared. The pain and swelling are removed and the breast resembles the other in every respect.

"The circumstance of finding a portion of the spine tender, and the removal of the tenderness by suitable remedies, being unexpectedly accompanied with relief of the fulness and pain in the breast, could not fail to produce a powerful impression on my mind, and to excite a suspicion that this irritable affection of the breast was a neuralgia of that part dependent upon disease of the spinal marrow."—*Teale on Neuralgic Diseases.*

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26. *Case of Dyspepsia, pulsation in the Epigastrium, &c.* By T. P. Teale, Esq.—"June 5th, 1828. Mrs. W. æt. 23, married, but has had no children; complains of pain in the left side of the abdomen, an oppressive weight or load at the stomach after eating, constant weariness, and extreme muscular debility. These unpleasant symptoms have affected her during the last five weeks. The pain in the left side is seated in the muscles, extends between the lowest ribs and crista of the ilium, for about five inches transversely; is a little increased on pressure; is fixed, and continues both day and night. There is a sense of constriction at the lower part of the chest, and a feeling as if a cord were tied round the waist, midway between the ensiform cartilage and umbilicus, which compels her to stoop forward. At night this corded sensation is sometimes so violent as to cause her to raise herself into a sitting posture, with the body bent forward. After taking food, either liquid or solid, the sensation of a heavy ball or weight is felt at the stomach, and continues generally for about an hour and a half. There is almost always a distressing pulsation in the epigastrium, which never ceases entirely, but only at intervals abates in violence, and is much aggravated by the ingestion of food. Frequent vomitings occur soon after taking food, and often, when it has been swallowed, it is gradually regurgitated by mouthfuls, until the stomach is evacuated; flatulence in a slight degree, and acidity constantly attend the digestive process.

"On inquiry, I find that she has aching pains in the legs, and such a feeling of weakness that the exercise of walking is attended with great difficulty and exertion; there is soreness of the skin, extending over the thighs, particularly felt on rubbing the hands over them, and prickling sensations, which principally take the course of the saphenus nerve. The toes are frequently drawn into an involuntary state of flexion, particularly at night, and she is unable to rectify them by the effort of the extensors. On examining the spine there does not appear any deviation from its natural form, but there is considerable tenderness on pressing the seventh, eighth, ninth, and tenth dorsal vertebræ: a slight degree of tenderness below, and a still slighter degree in a few of those above.

"A blister to be applied over the tender vertebræ.

"10th. She feels much better, and says she is 'not like the same being.' The blister was applied on the evening of the 6th, on the next morning the pain in the abdomen had vanished; since that time she has not felt the pain and weight at the epigastrium, and the pulsation is greatly diminished. The food has not been regurgitated; digestion has been performed comfortably; she feels that 'her food does her good.' She is free from flatulence and acidity; the muscular power of the lower extremities is increased, and the prickling sensations and numbness have left her entirely.

"On pressing the spine, only a slight trace of tenderness can be detected in the original situation. Ordered another blister, to guard against relapse.

"16th. She considers herself perfectly recovered.

"Eight months after this date she had continued well, and had enjoyed better health than for several preceding years."—*Ibid.*

27. *Case of Flatulence, Pyrosis, Neuralgia of Thoracic Parietes.* By T. P. Teale, Esq.—"June 11, 1828. Mrs. B. æt. 64, an emaciated old woman, complains of being greatly annoyed by discharges of air from the stomach. She has pain across the epigastrium, resembling cramp, increased at intervals, and when it abates a little, is replaced by a sense of soreness in the region of the stomach; corded sensation round the waist; sudden and copious discharges of air from the stomach, occurring frequently during the course of twenty-four hours, and sometimes continuing for an hour at a time; pyrosis in a great degree. No affection of the extremities. She has suffered from these symptoms for several months, but in a more violent degree during the last fortnight. Great tenderness on pressing the fourth, fifth, seventh, and lower dorsal vertebræ. Four days ago she applied a blister to the epigastrium, but without the slightest relief; indeed she considered the symptoms were aggravated by it.

"Apply a blister to the lower dorsal vertebræ.

"19th. The corded sensation and pyrosis ceased during the application of the blister; the attacks of flatulence and distention are much reduced in frequency, violence, and duration. There is a little tenderness in the fifth dorsal vertebra; the lower part of the spine cannot be examined, as the skin remains painful from the blister.

"Six leeches to be applied near the fifth dorsal vertebra.

"On the 24th, the flatulence caused very slight inconvenience, and on the 2d of July she considered herself quite well."—*Ibid.*

28. *Case of Angina, Neuralgia of Left Arm and Breast, Flatulence, &c.* By T. P. Teale.—"August 18th, 1828, Mrs. R. æt. 57, whilst on a visit in Leeds, consulted me respecting a variety of nervous symptoms, which, for a great length of time, had given her considerable anxiety. On inquiry, I found that she had tightness across the epigastrium, flatulence, palpitations, and general muscular debility. There was tenderness on pressing most of the cervical, and some of the lower dorsal vertebræ. Leeches were applied to the spine, and on the following night a blister, which produced great relief, and in few days she was considered convalescent, being better than she had been for many months. On the evening of the 25th, she was suddenly seized with coldness, inexpressible sense of suffocation, tightness and oppression at the chest, a feeling as if she were immediately about to die, pain striking down the left arm to the elbow, and down from the neck to the left breast. Some relief was obtained after the discharge of great quantities of air from the stomach. Stimulants were administered, a sinapism applied to the spine, and warmth externally to the extremities. As soon as the heat of the body was restored, she felt comparatively well. On the next day, tenderness was felt in the same parts of the spine as before, and the symptoms mentioned at the commencement of this account were perceived, though in a moderate degree. As she was obliged to return home, she was directed to apply a blister alternately to the cervical and lower dorsal vertebræ, at intervals of ten days or a fortnight, for a few months. She has for some years been subject to occasional paroxysms of this kind. I have not heard of her since she left.

"This case is of importance, as it shows that the occurrence of congestion in an individual labouring under, or barely recovered from irritation of the spinal marrow and ganglia, produces that train of symptoms which has been designated angina pectoris."—*Ibid.*

29. *Inflammation of the Spinal Marrow, and of the Anterior Roots of the Spinal Nerves.*—A washerwomen, æt. 44, subject to rheumatism, after standing in the water for a long time, was obliged on the 8th of October, to take to her

bed, in consequence of difficulty of moving the lower jaw, with rigidity of the neck, and a feeling of tension of the limbs. The disease gaining ground, she was conveyed to the hospital of Udine on the 10th, the third day from the attack. The tetanic contractions were now more violent in the trunk and extremities than in the muscles of the jaw. The employment of the tepid bath somewhat diminished the trismus. The trunk was bent backward; the upper extremities stiff and extended, were strongly pressed against the chest, and carried a little backward. The lower extremities also rigid and extended, did not incline to either side. Respiration was frequent and feeble. The bowels were in a constipated state, and there was a difficulty in making water. The pulse was strong and frequent; the skin hot, and in some parts disposed to perspire. The intellectual faculties were quite unimpaired, and the sensibility was altogether natural. There was ardent thirst, and the tongue, red at its edges, was dry all over. On the morrow the trismus was not augmented, but all the other symptoms were increased. The abdominal parietes were harder than on the night before; the fever continued; there was no sign of suffering on the part of the brain. Sensibility was still perfect, and the patient felt all species of contact. She expired on the third day from the period of her admission.

Sectio Cadaveris.—Brain and cerebellum perfectly healthy. In the vertebral canal, under the dura mater, there was found a quantity of reddish serum more considerable than common. The arachnoid did not present any alteration. The pia mater exhibited, on its anterior aspect, a net-work of vessels, which did not exist on its posterior surface. The medulla oblongata was healthy. Immediately below where the fibres of the anterior pyramidal eminences cross each other, the anterior half of the spinal marrow presented a series of small spherical or oblong tubercles or swellings, which preserved their form after the pia mater, which covered them, was removed. Their size varied from the magnitude of a millet seed to that of a vetch. While the spinal marrow remained covered with the pia mater, its anterior moiety appeared nearly as firm as ordinary; but as soon as the membrane was removed, this part of the medulla was found converted into a soft pultaceous substance, formed of an infinite number of the small swellings already mentioned. They had completely effaced the lateral longitudinal lines of the medulla, and had very much diminished the median groove. After being exposed for some hours to the air, this pultaceous substance became converted into a fluid similar to starch diluted in water. The colour of the diseased portion was pale-white, inclining to yellow. The interior presented a few red points here and there. Careful dissection demonstrated that the alteration occupied only the medullary portion of the anterior part of the spinal marrow, and that the gray substance did not participate in the disease. The anterior and posterior roots of the spinal nerves presented physical characters very dissimilar. The posterior were perfectly healthy; the anterior, on the contrary, were much softened, and of a whitish-yellow colour.. They were very easily detached, and they presented here and there small tubercles like those observed on the anterior part of the spinal marrow.—*Lond. Med. and Surg. Journ. March*, 1829, *from Annali Universali di Med.*

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30. *Seat of Fever.*—M. Cruveilhier announced to the Anatomical Society of Paris that he had carefully dissected the body of a man who had died in consequence of a violent fever, and he had not been able to discover any lesion, except an ulceration of the ileo-cœcal valve.

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31. *Curious Case of Metastasis occurring in a Woman during Lactation*—This case is related by Dr. F. Frarchina, in the *Giorn. Anal. di Med.* for December, 1828, and February, 1829. A nurse went to Milan for the purpose of getting a child to suckle; the following day having obtained a male infant, she took it home with her. On her way, she nursed it several times, and also in the evening after her arrival at home. But on the night following, she all at once felt as if a fluid descended from the breast to the abdomen, and shortly afterwards she

voided by stools and urine a milky humour, which, according to the statement of the woman, presented all the characters of pure milk. This evacuation continued all night to such an extent as to fill two urinals. In the mean time, and in one night, the milk disappeared from the breasts, so that it was no longer possible for the infant to get another drop. The following days, these abnormal milky evacuations continued, but in less quantity. At length, after disappearing completely for twelve days, the milk returned to the breasts as regularly as before, and the woman resumed again the nursing of the child, which she had confided to the care of another nurse.—*Journal des Progrès, Vol. XVI.*

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32. *Experiments to show the Non-contagious nature of Yellow Fever.*—We find in one of the foreign journals, the following notice of some experiments made by M. Guyon, physican to the first regiment of Martinique. They are detailed at length in a "*Memoire sur la non-contagion de la fievre jaune, par M. Lafort, Méd. en Chef de la Marine à la Martinique.*" M. Guyon took the shirt of a patient who had just died of the fever, and put it on whilst it was still soaked with sweat; at the same time he was inoculated with the yellowish matter from blisters, which the same patient had had shortly before his death. He wore the shirt for twenty-four hours, during which time he was constantly observed by medical witnesses. Two days afterwards he drank about two ounces of black fluid, vomited by a patient who died on the following day. Another portion of the same fluid was rubbed into his arms, and he was also inoculated with it. Immediately after the death of the second patient, he put on his shirt, which was much stained with black fluid, and lay in his bed, where he remained for six hours and a half. He then opened the body of the first patient, whose stomach was found filled with black fluid, inflamed, and with the mucous membrane ulcerated; he was again inoculated with the black matter, and pieces of the stomach were applied over the wounds, which, after twenty-four hours, were found inflamed, and very painful; after three days, these symptoms having disappeared, M. Guyon was perfectly well. All these experiments were made in the presence of the medical officers of the station, and Lieutenant-General Donzelot, Governor of Martinique, vouches for their authenticity.

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33. *Collections of Pus in the Cavities of the Heart.* By M. Marechal, interne of the Hôpital des Enfans.—Case I. F. Clementine, æt. 14, of good constitution, but who had not yet menstruated, entered the hospital on the 31st of January, 1828, with almost perfect paraplegia. Caustic issues to the loins and warm vapour douches proving unsuccessful, M. Guersent administered the nux vomica in the form of lavement. The remedy proved of considerable service, and the dose was raised to five grains and a half, when symptoms of gastro-enterite supervened, and its use was abandoned. The symptoms in question subsided under moderate antiphlogistic regimen, but the paraplegia gradually returned, and the patient was soon in the same state as when she was first received in the hospital.

About the month of May, she was seized again with pain in the abdomen, fever, head-ache, nausea and diarrhœa, together with cough and much mucous expectoration. Local bleedings were employed without any great effect, but the symptoms were not productive of alarm until after a violent mental emotion, when they assumed an extremely dangerous aspect. The pulse became rapid and extremely weak, the expression of the countenance anxious and altered; the cough was harassing, painful, and attended with a continual sense of suffocation—the nausea was converted into frequent vomiting of dark-coloured matters—the diarrhœa gave way to obstinate constipation with violent pain, sometimes in the epigastric, sometimes in the hypogastric region—the surface of the body was cold—the left foot red and extremely painful. The application of external warmth, with derivatives and narcotics, was resorted to in vain, and the symptoms continued unabated for two days, when a copious alvine evacuation procured a temporary calm. They quickly, however returned with augmented violence, especially the coldness of the lower extremities and imminent sense of suffocation. In a paroxysm of the latter the patient expired at 7 A. M. of the 1st of June.

Dissection.—The contents of the cranium were perfectly sound. The spine presented a lateral curvature, but exercised no compression on the medulla, which was free from disease, as were also its membranes. The bronchial glands were large, and the principal divisions of the bronchi were deeply reddened, and filled with a frothy bloody fluid, resembling the expectoration during the two last days of the patient's life. On the left side of the chest were some old adhesions of the pleuræ, and the apex of that lung presented a tuberculous excavation, surrounded by a hardened mass, in part hepatized, and in part infiltrated with tubercles. The lower lobe was much gorged, and in its centre were several nuclei of hepatization. The right lung was also gorged with blood, and crepitated a little throughout.

The heart was very large, measuring five inches in length from base to apex, and four inches at its greatest breadth. This enlargement depended not only on dilatation of the cavities, but thickening of the parietes: in other words, on hypertrophy with dilatation. The left ventricle particularly showed this alteration, being more than doubled in the size of its cavity, and presenting columnæ carneæ as large as the little finger of an adult. The hypertrophy of the walls of the ventricle was greatest at the base, the apex being thin and weak. The inferior half of the ventricle was filled by a round, white, fluctuating mass, containing in its centre a grayish-red liquid, of the consistence of cream, around a sort of nucleus marked with whitish streaks. The mass in question was soft, lacerable, aud adhering slightly to the columnæ carneæ, between which it sent prolongations. The rest of the ventricular cavity contained several loose and dark coagula. The aortic opening was so narrow as scarcely to receive the extremity of the forefinger, and the artery itself was of very small caliber. The left auricle was diminutive. The right ventricle was only dilated at its upper part, which was filled by black and soft coagula; across its middle was a transverse band, partitioning its cavity into two; this septum, which does not appear to have been a complete one, was three lines in breadth, and its extremities were continuous with the columnæ carneæ. The right auricle was much distended and filled with black coagulated blood.

The mucous membrane of the stomach and intestines was reddened throughout its whole extent. Small rounded tubercles, the size of peas, were deposited in the cortical substance of the kidneys.

Case II.—Marguérite Menjaud, ten years of age, of weak constitution, was admitted into the Hôpital des Enfans on the 28th of August, 1828, with stupor, prostration, and other symptoms of severe fever. She had only been ill some days before her admission, and at the end of a month the parents removed her from the house, although she was far from convalescent. In another month, however, they brought her back, stating that the child had suffered from cough and diarrhœa, which had been much worse for the last four days, during which there had been vomiting and palpitations at the heart. In the course of a week which elapsed between the patient's readmission, and her death, the following symptoms were observed. Pulse not frequent, but extremely small—pulsations of the heart very violent, unaccompanied with any particular *bruit*, but perceptible in the epigastric region, and heard over the whole extent of the thorax—cough constant—sputa viscid, glutinous, and yellow—dull sound on percussion behind and on the right side—absence of respiration, and "souffle tubaire" in the same points—slight tremor of the voice—decubitus on the right side—nausea—diarrhœa—and pain over the whole extent of the abdomen. Such were the symptoms observed in the short space of time that elapsed before the little patient died.

Dissection.—The substance of the brain was extremely firm. The bronchial glands on the right side were softened, and infiltrated in part with tuberculous matter; on the left they were merely enlarged and red. The two upper lobes of the right lung were crepitant throughout, and contained some gray, semi-transparent granules. The inferior lobe was completely hepatized, and contained above, some small tubercular masses; and below, a tubercle the size of a pigeon's egg, and softened in its centre. The right pleural cavity contained some greenish, rather turbid liquid, and the pleura pulmonalis was covered by a soft false membrane. The right side of the chest was unaffected.

The volume of the heart was at least doubled from the equal dilatation of the two ventricles, without appreciable augmentation of the thickness of their walls. Both ventricles were filled with black clots, "beneath which were seen three purulent collections. One was on the left side, lying on the inter-ventricular septum at about its middle; the others were on the right. On both sides they presented the same characters, being about the volume of a small nut, white externally, in contact with the coagula and columnæ carneæ, and sending prolongations into the intervals between the last. Each pouch in the interior contained a fluid, having the consistence of cream, of a dirty yellow colour, and entirely escaping on wounding the pouch. The latter was about a third of a line in thickness, of dull white colour, slightly rugous, and easily broken.

The mesenteric glands had small tuberculous points in their centre. The mucous membrane of the stomach was softened and wasted in parts. Above the ileo-cœcal valve, was a lenticular ulceration of the small intestine. The mucous membrane of the valve, the cœcum, and the ascending colon, were uniformly red. The spleen presented in its texture a number of solid tubercular deposits. The same were discovered in the liver, containing in their centre a greenish liquid, resembling in all respects the bile."

These cases may afford matter for some consideration and more dispute. Waving on this occasion all other points, we must dwell for a moment on what was discovered in the heart. Abscess in the centre of that organ, though a somewhat startling kind of announcement, has yet been alluded to by authors. Mr. Wardrop, in his edition of Baillie's Morbid Anatomy, declares that he has seen "a preparation of a polypus in the left ventricle, in the centre of which was a distinct abscess;" and Mr. J. Stewart relates a case in the Edinburgh Medical and Surgical Journal for 1817, in which high vascular polypi were discovered in the right auricle, and either ventricle. We think, then, that taking these facts, and especially that of Mr. Wardrop, in connexion with the two now reported from the Hôpital des Enfans, little doubt can remain that either purulent matter, or something so like it as completely to deceive the best informed men, has been found in coagula or polypi lodged in the cavities of the heart. To this conclusion we must either yield our undivided assent, or believe that Mr. Wardrop, and the medical officers of the Hôpital des Enfans, have been themselves misled, or wilfully misled their brethren. The existence of pus is, however, the least of the difficulty; its mode of formation is the rub. Are we to suppose that it is produced in the centre of a polypus, that is to say, in a clot of unorganized matter, by the same sort of process as in organized parts of the living body; in other words, that it is the product of inflammation? Our reason, or it may be our prejudice, forbids the supposition. There were no other marks of inflammation present, no lymph, no injection of vessels, and the symptoms during life differed so materially in the only two cases of which we have given an account, as to disprove, to our minds, the idea of its existence.

Whoever has examined many polypi of the heart, must have noticed that they frequently vary in their consistence. The central part is occasionally softer, and yellow or paler in colour than the external, and that to a very considerable degree. It may readily be imagined that such a change may proceed even farther, and instead of mere softening, that actual pus, or something very like it, may be formed, independently of all cognizable inflammation, or of any thing akin to such a process. Pus is a product of the blood, and we see no good reason against its formation, under peculiar circumstances, from its matrix, by other means than by inflammatory action. At all events, it is not only more safe, but more philosophical, to conclude that the purulent fluid found in these cases, was the result of some peculiar decomposition or change in the clot itself, than of inflammation resembling that in other parts. Analogy is against the latter supposition, probability in favour of the former.

The reporter of the present cases believes that the pus was formed during life.—*Medico-Chirurgical Review, Oct.* 1829, *from the Journal Hebdomadaire, No.* 25.

MATERIA MEDICA.

34. *Actual Cautery.*—Mr. SYME states in the *Edinburgh Medical and Surgical Journal for October* last, that for some time past he has made much use of the actual cautery as a counter irritant. In the morbus coxarius, and a similar disease of the shoulder-joint, the omalgia of Rust, he says that he has derived the most striking benefit from its employment. This remedy is very fashionable in Germany.

35. *Male Jalap.*—M. CHEVALLIER read a letter to the Royal Academy of Medicine, from M. Ledanois, a French apothecary, travelling in Mexico, and dated from Orizava. M. L. announces a new kind of jalap by the name of *male jalap*, which is found extensively in the country, and possesses strong purgative powers. He gives a short description of the plant which furnishes it; it is very hairy, and has pale leaves: that of the common jalap is smooth, of a bright green, and has a climbing stem. The male jalap presents fibrous, spindle-shaped roots, some twenty inches long, whilst the common jalap has tuberculous ones. M. L. proposes to ascertain whether this is a *Convolvulus*, (for some botanists have made it an *Ipomœa*,) and if the male jalap differs from it, as a learned botanist thinks, only from the diversity of locality modifying its forms. M. L. gives the following analysis of the male jalap from experiments on 1000 parts:—

Resin	80
Gummy Extract	256
Starch	32
Vegetable Albumen	24
Woody Fibre	580
	972

The incinerated root presented muriates and carbonates of lime, of potass, and of magnesia, with some traces of iron, and some other residua trifling in quality; this medicine, besides, is active and sure.—*Revue Médicale, Sept.* 1829.

36. *On the Different Genera and Species confounded with Cinchona.*—M. de Candolle has published a short notice on the different genera and species of bark, which have been confounded under the name of Cinchona; the following are his conclusions:—

1. It results from the enumeration made, that the forty-six species of trees or shrubs, until now more or less confounded in books, compose eight distinct genera, namely, *Cinchona, Buena, Remigia, Exostemma, Pinkneya, Hymenodyctron, Luculia, Danáis.*

2. What is known of the bark of these eight groups appears to indicate a decided connexion between the external forms and the medical virtues, and in particular, that although all these barks may be usefully administered in intermitting fevers as bitter or astringent, it appears that the barks of *Cinchona* only contain quinia, and that they probably are those which only are endowed with anti-intermitting properties.

3. The yellow bark of medical men is produced from the Cinchona pubes-

cens, and probably also in part from *C. purpurea* and *Humboldtiana.* The orange bark from the *C. lancifolia;* the red bark from the *C. scrobiculata* and the *C. magnifolia;* and the pale bark of best quality from the *C. condaminia,* whilst that of inferior quality comes from a mixture of many species.

4. The eight genera obtained by the dismemberment of the old genus *Cinchona*, are sensibly in the relation of the geographical distribution of these vegetables over the globe; *Luculia*, and *Hymenodyctron* in the East Indies, *Danáis* in the southern isles of Africa, (Bourbon and France,) *Pinkneya* in Carolina and Georgia, *Remigia* in Brazil, *Buena* and *Cinchona* in Peru and the Andes of Bogota. The genus *Exostemma* is an exception to this regularity; but it may be observed that true *Exostemma* lives in the Antilles, *Pseudostemma* in Brazil; and the *Brachyanthes* are divided between America and the Phillippine Islands, with this circumstance, that the species of the Phillippines form perhaps a distinct genus.—*Quarterly Journal of Science, Sept.* 1829, *from the Bib. Univ. XLI.*

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37. *On the Effects of Camphor in a Healthy Individual.* By Dr. Lucas Scudery, of Messina.—It is extremely difficult from the difference of action of the same medicine upon different individuals, the age, sex, constitution, &c. of the individual influencing the effects, to arrive at any general results. The following experiments on camphor appear, however, to have been made with great care; they were performed in the presence of several persons, who themselves submitted afterwards to experiment; so that confidence may be reposed in the results.

From ten to fifteen grains of camphor taken into the stomach, produces in from fifteen to twenty minutes a decided acceleration with increased force of the pulse, which continues permanent for one or two hours. There are produced at the same time redness of the face, dryness of the skin, head-ache with vertigo, increased sensibility to light, and brightness of the eyes; injection of the conjunctiva; stricture of the chest; odour of camphor in the breath; desire to urinate; urine smelling of camphor, passed in small quantities, and producing a burning in the urethra; constipation. These symptoms generally disappear at the end of about four hours; during the night the sleep is disturbed by voluptuous reveries, with erection of the penis, and pollutions. These effects, which were produced in five successive experiments, were more decided when the camphor was taken dissolved in alcohol; their intensity was also in proportion to the increase of the quantity taken; its effects were also then more prolonged, and accompanied with feverishness. M. S. has swallowed progressively as much as two scruples of camphor at a time, in many experiments. Drs. Pasquali, Mazzetti, and Gassoni repeated these experiments, and with the same results.

A month after these experiments, Dr. Scudery wishing to ascertain what modification nitre would produce in the action of camphor, swallowed two scruples of the latter article, and five minutes afterwards he took two drachms of nitre dissolved in water. He experienced almost immediately afterwards nausea, with chilliness, and an abundant salivation. In about ten minutes the pulse lessened, but before twenty-five minutes, it had acquired new force; there supervened slight head-ache, confusion of ideas; the pain in the head gradually augmented, the light appeared stronger than natural, and objects clearer; the conjunctiva was injected; face warm; desire to urinate; pulse vibratory and frequent. In this state, Dr. S. took another solution of two drachms of nitre: immediately afterwards the nausea reappeared, but the head-ache and other phenomena disappeared; after some minutes they reappeared, but slightly. Half an hour afterwards, he passed a small quantity of urine without pain; pulse natural; during the remainder of the day no phenomena appeared, he passed a calm night; urine abundant, and depositing a sediment; he had two alvine evacuations. These experiments, like the preceding, were frequently repeated with different doses of nitre and camphor; and Mr. Mazzetti also made some trials with them.

From all these experiments, Mr. Scudery concludes—1st. That in the dose of from eight to ten grains, camphor produces in a healthy man scarcely any appreciable effect; and that in diseases, it should be given to the extent of two scruples, but in divided doses. 2d. That one of the effects of camphor upon the system, is to produce an excitation, characterized by an acceleration of the circulation, and an elevation of animal heat. 3d. That it produces no irritation of the gastro-intestinal mucous membrane, that it excites neither pain nor borborygmus, but that it constipates. 4th. That it acts specially upon the genito-urinary organs, augmenting the energy of their functions; voluptuous reveries, erection of the penis, sensation of heat in the urethra when urine is voided, are proofs of its stimulating action. 5th. That vertigo, the vivid impression of light on the eye, head-ache, acceleration of the circulation and excitation of the genito-urinary organs, &c. announces that camphor acts directly upon the brain and the great sympathetic. 6th. That the stimulating effect of camphor is augmented by uniting it with another stimulant, as alcohol; whilst nitre, on the contrary, diminishes its stimulating properties.—*Arch. Gén. from the Annali Universali di Med. Milan, June,* 1829.

38. *Potassium employed as a Caustic.*—Dr. Graefe anticipating that this substance would unite the action of the actual and potential cautery, determined to try it, and accordingly he applied it in the following manner:—The part on which it was to be used, was covered with a piece of moistened pasteboard, with an opening in the middle, over which a brass cylinder, an inch in height, was kept by means of a handle a foot in length. A piece of potassium about the size of a bean, was then taken from the petroleum in which it is kept, and ed upon the skin, a few drops of water were thrown over the metal, a violent placed on the skin, and while the cylinder and pasteboard were firmly press- pain immediately ensued for a few seconds, after which the cylinder and pasteboard being removed, a brownish-yellow gelatinous slough was found, and was dressed in the same manner as that from the actual cautery. The method was employed in four cases of swelling of the knee, two of which were cured by it, and the others greatly relieved.—*Journal für Chirurgie und Augenheilkunde,* 1829.

39. *On the Property of Asparagus of Calming the Action of the Heart without Irritating the Stomach.* By M. Broussais.—The digitalis purpurea, the hydrocyanic acid, and its preparations, opium, and all the other narcotics, which have hitherto been employed to diminish the accelerated action of the heart, while they produce this effect, at the same time increase the susceptibility of the stomach. According to M. Broussais, the asparagus possesses the valuable property of calming the excitation of the heart, without irritating the stomach. The discovery of this property of the asparagus was made by a gentleman who was affected with hypertrophy and exalted activity of the heart, and who observed that whenever he ate this plant his complaint was better. As he could not procure the plant at all seasons, he made a syrup of it, which he found answer equally well. He communicated this fact to his physician, whose name is not given, and who has tried the remedy in many cases with success. M. Broussais says that he also has used the syrup, and his experience confirms the preceding statement. We are promised hereafter some further information on this subject.—*Annales de la Médecine Physiologique, July,* 1829.

40. *Power of the Sulphate of Quinine in Accelerating Mercurial Action.*—Dr. Harty, of Dublin, states, in a communication in the *Edinburgh Medical and Surgical Journal,* for October last, that the sulphate of quinine has the property of accelerating the mercurial action, and that it will sometimes re-excite it after it has apparently ceased. We subjoin one of the cases which he adduces in sup-

port of his observations. "A medical friend to whom I had communicated these facts, having been seized with quotidian, employed the bark liberally, and then the sulphate, without any previous use of mercury, which he dreaded from the readiness with which it usually affected his gums. The quotidian accessions continuing, though with abated violence, and the feces appearing of a highly bilious character, he was induced to take five grains of Plummer's pill, (containing one of calomel,) with the intention of repeating it daily. In less than six hours after the first dose, he distinctly felt the mercurial action establishing itself in the gums, and could scarcely credit his feelings until the facts already detailed were recalled to his recollection."

PRACTICE OF MEDICINE.

41. *On the Use of Acetate of Lead in Ulcerated Phthisis.*—Dr. Lenz considers the acetate of lead as a true panacea in chronic pneumonia which has gone on to ulceration. Dr. Schneider, of Ettenheim, is also said to have employed that remedy in this disease, with success. The medicine is given in powder, combined with opium; the dose gradually increased. A patient who was cured by Dr. Lenz, took two drachms in thirty-two days; and Dr. Schneider has often given fourteen grains in one day, without producing the least ill effects.—*Bulletin des Sc. Med. June,* 1829, *from Heidelb. Klinische Annalen, B. iv.*

42. *Warts cured by the Decoction of Tormentilla.*—Mr. Tyrrell has for two or three years been employing a decoction of tormentilla root, as an application to the warts so common and usually so troublesome about the glans penis and prepuce. The form is as follows: ℞. Pulv. radicis tormentillæ, ℥j.; aq. ferventis, ℔j. Decoque ad ℔ss. dein cola. The surface of the affected part should be well cleansed, three or four times a day with tepid water, and otherwise kept constantly covered with a piece of lint saturated with the decoction. —*Lond. Med. Gaz. Oct.* 1829.

43. *Chlorine as a Cure for Scarlatina.*—Messrs. Taynton and Williams, in a communication in the *London Medical Gazette,* for September last, recommend in very strong terms, the use of chlorine in scarlatina. The remedy is given in solution; one drachm of the chlorine in half a pint of distilled water.

44. *Case of Bronchocele relieved by Iodine—Effects of this Medicine on the Genitals.*—A young man, æt. 18, of a lymphatic constitution, had, from his fifteenth year, when he attained to puberty, been affected with bronchocele, which soon reached such a size as to produce considerable dyspnœa, and frequent attacks of suffocation and hoarseness. Being admitted into the Hôtel Dieu, the tumour was found so large as to occupy the whole space between the middle of the neck and the clavicles; it was formed of two lobes, and lifted up by the pulsation of the carotids; in its substance, also, an alternating enlargement was visible during the arterial expansion. The general health of the patient not being affected, he was put under a course of iodine, of the tincture of which he took from six to ten drops daily. The tumour gradually subsided, its lobes became more distinct, the voice more natural, and the difficulty of respiration ceased altogether. It is worthy of remark, that under the use of iodine, the genitals became, as it were, atrophic, and that erections and pollutions, to which the patient had formerly been very subject, were never observed during this time. —*La Clinique.*

45. *Frictions with the Deuto-Ioduret of Mercury in Lupus.*—M. Biett has seen much advantage from frictions with the deuto-ioduret of mercury in lupus; the

surface becoming "reanimated" under its use, and the violet tint changing for a florid and brighter colour. From ten grains to a scruple is the quantity, mixed with lard or any fatty substance. A scrofulous child in the hospital affected with lupus in a very severe degree, has been treated by this application, in combination with the muriate of lime internally. The ointment was only applied on the right side of the face, in order to determine its actual effects. Upwards of a month has now elapsed since the commencement of the treatment, and the left side exhibits no apparent change, but the right is evidently improved. The violet colour is replaced by one of a bright rosy red, the injection of the venous capillaries is considerably diminished, and healthier action being thus set up, strong anticipations of a cure are entertained. Iodine had been previously employed in this case without effect, but in others M. Biett has seen it productive of decided benefit.—*Med. Chir. Rev. Oct.* 1829, *from Journal Hebdomadaire, No. XLII.*

46. *Hooping Cough cured by Morphium employed according to the Endermic Method.*—Dr. Meyer, of Minden, announces in *Rust's Magazin*, that he has removed all the symptoms of hooping cough in a few days, by the application of morphium to the exterior. The following is his mode of treatment; he applies a very small blister to the epigastric region, and after removing the epidermis, he applies to the denuded surface half a grain of morphium, triturated with a portion of starch. This application is to be renewed every evening. It is often necessary he says to renew the blister, which dries rapidly. The only remedy that M. Meyer employs with the above is an emetic. He relates five cases of very violent hooping cough completely cured in eight days, and without using any other remedies.—*Archives Générales, Oct.* 1829.

47. *Case of Rheumatism cured by Electro-Puncturation.* By Dr. Graefe.—A Prussian officer, in consequence of a severe cold, was affected with rheumatic pain in the left thigh, which ultimately produced complete lameness; issues, frictions, and a great many other remedies having been used without any effect, four needles were plunged into the gluteus in a vertical direction, and electricity passed into them, first in a stream, then in sparks, which were ultimately made of considerable power. After six weeks, the pain had disappeared from the upper part of the thigh, but had become more violent towards the nose; the use of electro-puncturation for three weeks, however, removed it entirely, and at the time of the report, the patient had been for two years in the enjoyment of continued good health.—*Graefe und Walther's Journal.*

48. *Croup treated with Sulphate of Copper.*—Dr. Fielitz in a paper in Hufeland and Osann's Journal, recommends the sulphate of copper as an emetic in croup, and relates five cases in which he employed it successfully.

49. *Traumatic Tetanus, cured by Acetate of Morphine, employed after the Endermic method.* By Dr. Gaspard Cerioli, of Cremona.—The subject of this case was a female, aged twenty-nine, the mother of five children, a nurse, whose constitution was robust, and general health good. About the middle of October, 1828, she wounded herself over the right eye-brow with a piece of wood, and applied cold water to the part, and likewise emollient poultices. Two days afterwards she was seized with a strong contraction of the muscles of the neck and abdomen, accompanied with an incipient trismus. The tetanus became insensibly general, the spasms excessively painful, manifesting themselves occasionally in the limbs. On the 22d October she was admitted into the hospital at Cremona, and on the 23d presented the following symptoms:—Face red, eyes brilliant, sardonic laugh, nostrils dilated, noise in the ears, sense of weight and pain in the head, the latter insupportable in the wound, trismus well developed, great hunger, which could not be appeased by the permanent closure of the mouth; thirst ardent, respiration continually painful, spasmodic contraction

of the abdominal muscles; urine sparing, reddish, and highly irritating when voided; constipation; pulse frequent and hard; intellectual faculties perfect; insomnolence constant. Venesection, warm baths, from one to two hours; frictions of camphor and opium on the neck and articulations of the jaws; internally a third of a grain of acetate of morphine every second hour, and purgative enemata. All these means were continued till the 27th, without producing any amelioration; the disease, on the contrary, had increased; the tetanic contractions had acquired the greatest intensity; the clonic spasms of the inferior limbs were more frequent and painful. This exasperation of the symptoms caused the suspension of the morphine and the reiteration of the blood-letting.—28th. Had a grain of ipecacuan every two hours, to produce perspiration, but the second dose caused vomiting and an aggravation of the symptoms; the medicine was therefore discontinued. Such was the state of the patient, which induced the belief that she must succumb very rapidly, when it was deemed right to resume the morphine, but to employ it externally.—November 1st. A blister was applied to the neck, and when vesication was effected, the epidermis having been removed, lint, smeared with marshmallows ointment, to which was added one-fourth of a grain of morphine, in fine powder, was applied to the part. The same quantity was applied in the afternoon. The effect produced was extremely remarkable; in a few hours the clonic spasms were weaker, the motion of the jaws more free, the contractions of the lineaments of the face became relaxed, the pains of the neck and back had diminished sensibly, the sufferer enjoyed a tranquil sleep, with slight occasional interruption. The following day the amelioration was augmented. A third of a grain of the morphine was continued twice a day; the other medicines were suspended. The ointment was continued to the 10th, and on the 16th the patient left the hospital perfectly cured. She returned on the 20th of December, and reported that she had had no return of the disease.—*Lond. Med. and Surg. Journal, from the Annali Universali di Med. May*, 1829.

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50. *Neuralgia of the Face cured by the Acetate of Morphine, employed externally.* By Dr. Gaspard Cerioli.—Mrs. R. C. of a robust constitution, but subject to hepatic colic, the menstruation healthy to the fifty-sixth year, laboured under scirrhus of the neck of the uterus, and also a small tumour, probably of the same kind, in her right breast. In the autumn of 1828 she had experienced pulsative and lancinating pains in the left side of the face, following the course of the inferior maxillary nerve. These pains were preceded by a sense of trembling in the gum of the same side. The pains irradiated with violence towards the roots of the teeth of the right side, extended to the whole head, and continued for four or six hours, and returning whenever the patient attempted certain motions of mastication, or when any thing struck her ears. As she was plethoric, blood-lettings, general and local, anodyne, emollient and antispasmodic embrocations, such as hyosciamus, lactusa virosa, valerian, and assafœtida, were employed; as also blisters behind the ears and to the nape of the neck. No advantage was derived from all these means. The sulphate of quinine produced sensible effect of a temporary kind, however, on the periodicity of the disease. The external use of the acetate of morphine afforded great relief, but the disease was excited, in a slight degree, by exposure to cold air.—*Ibid.*

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51. *Treatment of Phthisis Pulmonalis by Chlorine.*—Some reported cures of phthisis pulmonalis have excited great interest in Paris; there appears, however, just grounds to believe that the benefit derived from the remedy has been much exaggerated. The subject has been, however, brought before the Royal Academy of Medicine, and at their meeting of the 11th August, 1829, M. Desportes made a report on a case of the disease cured by means of inhalations of chlorine gas, by Dr. Cottereau, *aggrégé* of the Faculty of Medicine of Paris. The patient is a young medical student, aged twenty-six, of delicate health, in whom all the symptoms of tubercular affection of the lungs were observed in a very high de-

gree. The patient was in a frightful state of debility and emaciation, and the disease appeared to be beyond all hopes of cure, when Dr. Cottereau, by means of an instrument of his invention, administered the chlorine gas. The influence of this treatment was rapid, and the young man recovered perfectly. At the time the case was drawn up *four months* had elapsed since the cure, and the subject of the case continued well, although he had applied himself to hard study, and had made botanical excursions of seven to eight leagues in one day.

The reporter is of opinion that the chlorine exerted a beneficial influence on M. Cottereau's patient, and affirms, that he has derived similar effects from this agent. He regrets, however, that the author has not entered into greater details relatively to the action of the chlorine. He adds that he has noticed the following symptoms after the administration of the remedy: irritations of the mucous membrane of the pharynx and bronchiæ, propagated to the lungs, copious expectoration, dry and fatiguing cough, redness of the cheeks, hot skin and frequent pulse. The vapours of chlorine can produce suffocation; but with care it is easy to guard against all accidents. The reporter concludes by proposing, 1. That the Academy address thanks to Dr. Cottereau. 2. That the latter be requested to continue his trials with remedy, and particularly to make experiments on animals in a state of health and disease, in order to ascertain the effects of chlorine. 3. That he be requested to communicate to the Academy the results, whether favourable or not, of his observations.

M. Honore stated the case of a young woman affected with phthisis pulmonalis, whom he treated last winter by means of chlorine gas. He obtained no success. M. Coutanceau announced that the chemist Gannal made a number of experiments of the kind at the Val-de-Grace, but without the least success. MM. Moreau and Merat cited instances in which chlorine administered in too great quantity occasioned injury to the patients. Finally, M. Rullier remarked, that he had resorted to this remedy in his hospital; but hitherto without advantage. Notwithstanding this unanimous opposition to the beneficial effects of chlorine, the Academy decided that thanks should be addressed to Dr. Cottereau.—*Archives Générales, Sept.* 1829.

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52. *Treatment of Persons Poisoned by Opium.*—M. Orfila recommends when persons have been poisoned with opium, and this poison has not been absorbed or ejected by vomiting, that the patient should be made to drink, before an emetic is administered, a strong decoction of nut-galls, which substance decomposes the opium.—*Nouvelle Biblioth. Méd. July,* 1829.

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53. *Treatment of Persons Poisoned with Hydrocyanic Acid.*—The researches of M. Orfila has led him to recommend the following treatment of persons poisoned by hydrocyanic acid:—1st. To give an emetic if the poison is still in the stomach. 2d. To make the patient inhale ammonia or better chlorine; to combat the cerebral symptoms by bleeding, and leeches applied behind the ears. 3d. To employ cold affusions, which are very useful. M. O. says that unless the dose of the poison taken is very large, these remedies will be successful. —*Ibid.*

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54. *Comparative Results of the Treatment of Syphilis with and without Mercury.* By M. Desruelles.—Of 1312 men admitted into Val-de-Grace with syphilitic diseases, between the 1st of April, 1825, and 31st of July, 1827, 1084 were treated for primitive symptoms, and 228 for consecutive symptoms, chronic and mercurial, simple and complicated. Of the 1084 affected with primitive symptoms, 386 were treated with mercury: mean duration of treatment 47 days. Of these last 189 were put upon an animal and stimulating regimen: mean duration of treatment 51 days. 197 were put upon a vegetable and mild (adoucissant) diet: mean duration of treatment 42 days.

The 698 others were treated without mercury: mean duration of treatment 28 days. Of these last 62 were put upon an animal and stimulating regimen:

mean duration of treatment 50 days. 636 were put upon a vegetable and mild regimen: mean duration of treatment 25 days.

Of the 228 men affected with consecutive symptoms, chronic or mercurial, 75 were treated with mercury: mean duration of treatment 67 days. Of these last 33 were put upon an animal and stimulating diet: mean duration of treatment 82 days. 42 were kept upon a vegetable and mild diet: mean duration of treatment 55 days.

153 others were treated without mercury, and all were kept upon a vegetable and mild diet: mean duration of treatment 45 days.

Thus, of 1312 patients, 461 were treated by mercury, viz. 386 for primitive, and 75 for consecutive symptoms, chronic and mercurial: the mean duration of treatment was 50 days. 851 were treated without mercury, viz. 698 for primitive, and 153 for consecutive symptoms, chronic and mercurial; and the mean duration of treatment was 32 days.

It results from these facts then, 1st, that when mercury is given, a vegetable and mild diet is more favourable for a cure than an animal and stimulating diet; 2d, that the same is the case when mercury is not exhibited; 3d, that when an animal and stimulating diet is prescribed, patients treated without mercury are cured more promptly than those treated with mercury; 4th, that when a vegetable and mild diet is prescribed, patients treated without mercury are cured more promptly than those treated with mercury; 5th, that patients treated without mercury, and placed upon a vegetable and mild diet, are cured more promptly than those treated with mercury, and put upon an animal and stimulating diet.—*La Clinique, Sept.* 12, 1829.

55. *Treatment of Scrofula with Iodine.*—M. Dumeril made a very favourable report to the Academy of Medicine of a memoir by M. Lugol, relative to the employment of iodine in scrofulous diseases. The following are his conclusions:—1st. M. Lugol has treated solely by iodine, in the space of seventeen months at the Hospital St. Louis, one hundred and nine patients affected with scrofula. 2d. At the end of the year, thirty-nine were still under treatment. 3d. That thirty had left the hospital decidedly better. 4th. That in four individuals the treatment was ineffectual. 5th. Finally, thirty-six were entirely cured. The author concludes that the iodine ought to be considered as the most effectual remedy against scrofula, since it arrests constantly its progress, or at least exercises a salutary influence over all tuberculous tumours, when it does not evidently effect a cure.—*La Clinique, Vol. V. No.* 6.

56. *Case of Intestinal Obstruction successfully treated by Mechanical Means.* By Alexander Russel Duguid, M. D. Kirkwall.—Dr. Duguid having been called to a patient labouring under intestinal obstruction, in a part of the country at a distance from any place where medicines could be obtained; and the purgatives, such as castor oil, croton oil, &c. which he could procure having been exhausted, he was obliged to trust to mechanical means for the relief of his patient: he employed the following with success:—

" Dilatation of the rectum with warm water, thrown up by Weiss's powerful syringe, was next resorted to. As soon as about a pint and a half were thrown up, he complained of much pain and distention, and it was returned with great force in spite of my efforts to prevent it, and without any trace of feculent matter. This was frequently repeated with the same result. I then introduced the elastic tube of Weiss's instrument, well oiled, about ten inches into the rectum, and finding an obstruction to its further passage, I fitted the syringe to its extremity, and continued to exhaust the air for a minute or two; but this having no effect, I attempted to push the tube past the obstruction. After some difficulty, and repeated trials, I gained a few inches, when all at once, to my great satisfaction, the resistance was overcome, and a copious discharge of very fetid flatus, with some liquid feces, took place through the tube, with almost instant relief of the distention and pain of the belly. I then fitted the syringe to the extremity of the tube, and pumped out a large quantity of feculent matter, of the appearance and consistence of yeast. When this was too solid to pass through the tube and syringe, so as to choke the instrument, a quantity of warm water was thrown in, and the pumping process resumed. In this way a great accumulation of feces was brought away, with total relief of all the symptoms. Upon withdrawing the tube, the cause of the obstruction, which indeed I had previously surmised, became very apparent, by the thin streaks of hardened feces with which the tube was coated on various parts of its surface, and which were confined to that portion of it which had passed the region, about ten inches from the anus, where the great difficulty of introduction had been experienced. An opiate enema was now administered, and I left my patient at 8 A. M. of the 11th. A purgative mixture of senna and salts was sent him, which operated well, and left him convalescent."—*Edin. Med. and Surg. Journ. Oct.* 1829.

OPHTHALMOLOGY.

57. *Oleum Terebinthinæ in Inflammation of the Internal Tissues of the Eye.*—Mr. Guthrie, it is stated in the *London Medical and Physical Journal for October* last, has treated upwards of thirty cases of inflammation of the internal parts of the eye, as iritis, &c. nearly all with complete success, by the oleum terebinthinæ. It is administered in drachm doses, with mucilage and any medicine which may make it most agreeable, and is continued until its action upon the kidneys and bladder becomes evident, few patients benefiting from its use until the scalding of the water, and the increased desire to pass it, became troublesome. When these symptoms are too severe, diluents, such as linseed tea, &c. are had recourse to, with gentle purgatives, opiates, warm bath, &c. In no one instance has permanent inconvenience occurred from its use.

58. *Prolapsus of the Crystalline Lens.*—Professor Chelius relates in the 4th Volume of the *Heidelberger Klinische Annalen,* two cases in which the crystalline lens left its natural situation, and fell through the pupil, without any apparent cause; the eye was apparently healthy.

59. *Chloride of Gold as a Collyrium.*—This is recommended by M. Jahn, of Meiningen, who says that he has employed it during a year in certain diseases of the eyes, and always with the happiest effects. The diseases in which he advises its use, are scrofulous, gouty and rheumatic inflammations, chronic ophthalmia and purulent ophthalmia of children. The following is the formula he employs:—℞. Chloride of gold, gr.ij.; distilled water, ℥vj. Some drops of this are to be instilled into the eye, and a compress wet with it applied over the eye. —*Rust's Magazin, Vol. XXVIII.*

60. *Alteration in the Eyes of a Subject affected with Hemeralopia.* By Dr. Chauffard, Physician of the Hospital at Avignon.—A soldier in the garrison of Avignon, aged twenty-three years, affected by hæmoptysis, after having had for three months hemeralopia, fell a victim to a violent entero-colitis, arising from extreme nostalgia, depraved digestion, and the effects of excessive heat. The optic nerve was carefully dissected, and from its origin, to its entrance into the optic foramen, it did not exhibit the slightest alteration either in colour or consistence, except that its envelope in the form of a sheath composed of the pia mater appeared more injected than in its normal state. Neither did the portion of this nerve, contained in the orbital cavity, present any signs of lesion, but appeared as if compressed by the extreme turgescence of a great number of blood-vessels which furrowed the internal layer of the dura mater,

accompanying this nerve into the orbit. The ophthalmic ganglion was reddish. The central artery of Zinn was conspicuous to the naked eye, as much as so delicate a vessel could be, even in its most engorged state, letting out a small drop of the blood which distended it at each transverse section of the nerve. Between the choroid and sclerotic coats there were sanguineous suffusions, true hæmorrhagic patches. The choroid was reddish, instead of the dark colour natural to it. These appearances existed in an equal degree on both sides. The hemeralopia seemed to have been occasioned by the residence of the soldier in barracks recently plastered. Many of his comrades were also affected.

To render the case more complete, Dr. Chauffard should have pointed out the condition of the encephalon, more especially that of the tubercula quadrigemina, from which the optic nerves take their origin, as well as that of the nerves of the fifth pair, which exert a special influence upon the sight.—*Journal des Progrès, Vol. XVI., from the Journal Universel des Sciences Médicales,* 1829.

61. *Extraction of Cataract.*—M. Dumont, oculist of Rouen, has performed this operation seventy-one times, sixty-two of which were successful, and nine unsuccessful.—*Archives Générales, Oct.* 1829.

62. *Rheumatic Ophthalmia, with Violent Photophobia.*—A case of this, of eighteen months standing, was successfully treated by Dr. Graefe, with frictions of calomel and opium around the eyes; the internal use of belladonna, and a seton in the neck. The patient was perfectly cured at the end of three weeks. —*Journ. für Chirurg. und Augenheilkunde,* 1829.

63. *Extraction of Cataract by the Section of the upper portion of the Cornea.*—Dr. Graefe says that this method has great advantages over the section of the lower half of the cornea. The subsequent inflammation is in general less intense; and the sight is more perfectly preserved, because the inferior portion of the cornea retains its transparency and natural convexity. Of eighteen persons operated upon by Dr. Graefe, in 1828, by extraction through the upper portion of the cornea, seventeen recovered their sight. In one only, the cornea became opaque, in consequence of an arthrite inflammation, with frequent relapses.—*Ibid.*

64. *Case of Paralysis of the Eye and Eye-lids cured by Electro-puncturation.* By Dr. Graefe.—A Prussian officer received a violent contusion on the right temple, which, after an active antiphlogistic treatment, left a paralytic affection of the eye, the globe and eye-lids being completely motionless; the pupil dilated, sight considerably impaired, and sometimes double; at the same time the patient suffered great pain over the orbit. The employment of many external and internal stimulants, and also of electricity, having been followed by no improvement, Dr. Graefe first tried simple acupuncturation; and as this also was of no effect, electro-puncturation; a faint stream of electricity was passed into two needles, which had been horizontally inserted in the superciliar region; the strength of the electric current was gradually increased; two more needles were placed between the two lamellæ of the eye-lids; and after nine weeks' treatment, small sparks were passed into the needles; from this time a very marked improvement took place; the motion of the eye-ball and lids returned, vision became more and more distinct, and after four months the patient was completely cured. About a twelvemonth afterwards he applied again to Dr. Graefe on account of the right eye having become slightly impaired; the use of electro-puncturation for six weeks was sufficient to restore it as completely as before.—*Journal für Chirurgie und Augenheilkunde.*

65. *Researches on the pathology and treatment of Strabismus.* By Professor Rossi.—Experience shows, according to Professor Rossi, that congenital stra-

bismus, which is the most frequent, may disappear spontaneously at or a little after puberty; or it may remain permanent: accidental strabismus, neglected, may become incurable. This difference in the termination leads to the belief that this affection of the eyes results in some cases from a defective disposition of the parts that concur in the act of vision, a disposition which sometimes disappears when the parts are completely developed, sometimes on the contrary, remains in spite of the efforts of nature and art. Post mortem examination of subjects affected with strabismus, who died at an adult age, has shown Dr. Rossi that in those who were affected with congenital strabismus, the orbitar cavity instead of having the form of a right pyramid, as natural, has that of a pyramid more or less oblique—that is to say, its summit is inclined superiorly or inferiorly, internally or externally, so that the central axis of this cavity is not perpendicular to the plane represented by the base of the orbit. In one subject in whom the summit of the orbit did not offer any of the deviations indicated, the muscle which caused the strabismus had an anomalous insertion. It results then from these observations: 1st. That a malformation of the orbit may change the natural direction of the muscles attached to it, and thus cause irregularity in their contractions; as these muscles are antagonists one to the other, it may be conceived that if the action of one is more energetic than the others, that strabismus will be the consequence. 2d. That although the obliquity of the orbit may exist in many different ways, that strabismus can occur but in six particular directions, in accordance with the muscles which move the eye. 3d. The progress of ossification can alone suffice, in some cases, to cure congenital strabismus; but at other times this has no effect in relieving abnormal movements of the eye-ball. Nevertheless it ought not to be concluded from this fact, that no means should be employed for the correction of this congenital deformity, although experience proves that congenital strabismus, may like accidental strabismus, remain incurable, notwithstanding the regular conformation of the orbit, either in consequence of some sympathetic influence or of an habitual irregular contraction of the muscular fibres.

It is known that the light may produce strabismus by striking upon the eye always in an oblique direction, because thence results a permanent action of certain muscles in the same direction, and the prolonged inaction of their antagonists. Hence it is sufficient to re-establish an equilibrium between the muscular powers, and from the particular study of recent accidental strabismus in young children, and repeated experiments, Professor Rossi has been led to recommend the following improved spectacles. The glasses which are plain and their circumference equal to that of the base of the orbit, are covered with a black varnish or thin pasteboard of the same colour: two linear openings are made on the glass thus prepared, crossing the centre of the glass at the point which corresponds with the pupil. One of these openings is to be horizontal, whilst the other is oblique in the same direction as that to which the eye is unnaturally directed, commencing from the side to which the eye is drawn, and passing to the opposite side, gradually enlarging, so as to form at this side a rounded opening of from four to six lines in diameter. By thus preparing the glasses of the spectacles, the greater part of the light which has access to the eye, passes to it from a point directly opposite to that to which the eye is habitually directed, and as the motor muscles of the eye direct this organ in some degree by an instinctive movement towards the light, that muscle which produces the strabismus acts then less forcibly than its antagonist, and thus brings back and retains the eye in a position opposite to that in which it remains whilst in a state of strabismus. Besides, by the disposition of the only transparent parts of the glass the contractile power of the muscles will be restored to their equilibrium, and the strabismus dissipated.

It is very important that the oblique uncovered portion of the glass, should correspond exactly to the obliquity caused by the strabismus; otherwise no result is obtained, or rather in destroying the existing deviation, another not less defective is produced. As to the period during which it is necessary to use the improved spectacles, it must be determined be the obstinacy of the strabismus, and the progress of the improvement.—*Archives Générales, September*, 1829, *from the Mem. de l'Acad. Roy. des Sc. de Turin, Tom.* 34.

66. *On the Treatment of Staphyloma.*—Dr. Fr. Flarer, Clinical Professor of Diseases of the Eyes, in the University of Pavia, has published in the *Annali Universali di Medicina*, for July, 1829, some very interesting observations on this subject, with cases. Dr. F. thinks that we ought to distinguish three varieties of partial staphyloma of the cornea. One, which constitutes the first degree of the disease, consists in a simple hernia of the cornea, circumscribed in extent, and which may be treated advantageously by astringent collyria, narcotics, and caustics. In the second variety the staphyloma has a very large base, and the vessels of the globe of the eye, especially those of the sclerotic and choroid, are varicose. Here he says caustics ought to be proscribed, for they always promote a cancerous degeneration of the eye. It is necessary in these cases to excise the tumour, preserving that portion of the cornea which retains its natural transparency, in order subsequently to be able to make an artificial pupil. This operation is useful to the healthy eye, which is painful from sympathy. Finally, in the third form of the disease, the staphyloma occupies three-fourths or more of the cornea, but it has no tendency to produce a degeneration of the globe of the eye, and the vessels are not varicose. Softening of the cornea, which is consecutive to an ophthalmo-blennorrhœa, as well as the adherence of the iris to the cornea in many points, and the accumulation of the aqueous humour in the anterior chamber, produces gradually the protrusion of the staphyloma. In this case there is imminent danger of a staphyloma of the whole cornea. If the communication between the humours of the eye and that of the anterior chamber be effected by making an artificial pupil, the existing staphyloma will be cured, and the staphyloma of the whole cornea prevented, but sight will not be restored to the patient.

67. *Treatment of Purulent Ophthalmia, (Ophthalmo-blennorrhagia.)*—In *La Clinique*, for August 22d, 1829, we find an interesting article on this subject, by Dr. Ed. Eissen, in which the author compares the treatment of this disease, employed by MM. Dupuytren, Boyer, and Roux, with that used by Beer and Louvrier, of Vienna, Rust, of Berlin, Sir Astley Cooper, and M. Hessert, Physician of the Grand Duke of Darmstadt.

M. Dupuytren commences by venesection—the application of leeches to the lower lids—afterwards he drops laudanum into the eye, and employs insufflations of calomel. These topical applications M. Eissen considers, we think justly, as perturbating and dangerous. He attributes to them the ravages which he has observed the disease to make in the Hôtel-Dieu, such as ulcerations of the cornea, coagulation of the humour existing between the laminæ of the cornea, and, consequently, cloudiness of this membrane.

Most of the physicians of Germany, notwithstanding the great advances that ophthalmology has made in that country, pursue a treatment equally incorrect. Professor Beck, of Fribourg, in his celebrated treatise on the diseases of the eyes, says, if the intensity of the inflammation has caused the suppression of the secretion from the urethra, leeches should be applied to the perineum, and also narcotico-emollient cataplasms, and tepid oil injected into the urethra. But if the eye be the organ most irritated, and the inflammation of the urethra has diminished, it is necessary to use irritating injections, or better to introduce a bougie smeared with virus. He considers the second indication, to treat the ophthalmia by general and local bleedings, and afterwards by frictions of mercurial ointment, combined with extract of belladonna or opium, to the temporal region. As long as the inflammation goes on increasing, he advises, for collyria, narcotic mucilages, a decoction of the heads of poppy, an infusion of digitalis with mucilage of the seeds of quince and opium. He afterwards substitutes for these the corrosive sublimate, or the mercurial ointment introduced under the eye-lids by means of a camel's hair brush.

Dr. Eissen says that it must be very evident, that the first, and most pressing indication, is to arrest the inflammation, since it promptly effects a disorganization of the eye. There are few affections in which it is necessary to bleed with more boldness. In robust subjects Dr. E. thinks it is often necessary to bleed *three* or *four times* in the twenty-four hours. This we suspect will never be required if a sufficient quantity of blood be drawn at first. The blood should be allowed to flow, (the patient being kept in an upright posture,) till faintness is produced; one such bleeding is far better than the detraction of a larger quantity of blood taken at several times, and without faintness being produced. The application of leeches to the lower eye-lid Dr. E. very properly reprobates as injurious, from the irritation produced by their bite. Much advantage, however, he says, may be derived from the detraction of blood by cups to the temples. As soon as this indication is fulfilled, a powerful revulsion should be produced by the application of blisters to the arm or neck; but particularly by the administration of calomel.

This last is not employed either as an antisyphilitic, or as a purgative, but to produce an increased secretion in the intestinal canal, and to determine an afflux of humour from the eye. To effect this, and to avoid a new determination towards the head, it is necessary to prevent the calomel producing salivation, and for this purpose it should be combined with equal parts of jalap or magnesia. The dose is five or six grains of calomel every hour. In feeble constitutions, half this dose will be sufficient, and the calomel should be combined with magnesia in preference to jalap. To obtain the full effect from this revulsion on the alimentary canal, it is necessary to continue the medicine until it produces an artificial disease, against which the organic reaction is forcibly called, which alone can produce a sufficient reaction in a great number of cases. This artificial affection is announced by borborygmæ in the intestines, by green and fœtid stools, by a pallid countenance, pinching of the alæ nasi, coldness of the extremities, and a metallic taste in the mouth, which the patient complains that he experiences. The only local application is tepid lotions of water of marsh mallow. Irritation and astringent collyria ought to be positively forbidden in the early stages of the diseases. Insufflations of calomel, the introduction of laudanum into the eye, the solutions of corrosive sublimate and the mercurial ointment employed when the inflammation abates, are always perilous remedies. When all inflammation has entirely disappeared, and they act only by making the varicose vessels of the conjunctiva contract, then only the use of astringent collyria are authorized.

When, notwithstanding the use of the collyria, the vessels remained engorged, it is necessary to have recourse to scarifications of the conjunctiva. In some cases it is proper to excise small portions of this thickened, and as it were, indurated membrane, in order to excite a more active circulation. During the whole course of the disease, it is almost unnecessary to observe that a rigid diet is to be enjoined. Dr. E. states that at the commencement of the present century, the disease under notice occurred with extreme violence among the officers of a regiment of the Hungarian Guards, at that time in Vienna, and they were all perfectly cured by Dr. Hessert, by the mode of treatment recommended above. Dr. E. promises some remarks hereafter on the treatment of chronic ophthalmia.

SURGERY.

68. *On the Extirpation of the Parotid Gland.*—M. A. A. Pillet, of Lyons, sustained before the Faculty of Medicine of Paris, June 16th, 1828, a thesis on this subject, which, as we have not been fortunate enough to see, we extract the

following notice of it from the *London Medical Gazette*, for September last. M. Pillet commences his thesis by a retrospect of the numerous instances of the performance of this operation, published in the course of the 18th century; and comes to the same conclusion as Richter, that as many of their authors have omitted to particularize the parts interested in the operation, we may fairly presume that the operators have been led to suppose they had abstracted the parotid, when they had merely dissected out an enlarged lymphatic gland, or other tumours situated upon it.

M. P. believes this to have been the case in the observations recorded by Verduin, Gooch, Behr, Palfin, and Scultetus; and considers his opinion confirmed by a passage in one of the authors on this subject, where he announces that hæmorrhage never follows ablation of the salivary glands, and regards as perfectly useless the precautionary means adopted against it. "But if we decide on rejecting the authenticity of these operations, at least as instances of total extirpation, what can we think, (asks M. P.) of analogous cases by authors combining profound anatomical knowledge with surgical talents? Of those of Heister? who first laid down precise ideas on the operation; and who cites, in proof of its possibility, the case of a student on whom it was performed, but who died three days afterwards of hæmorrhage from a wound of the carotid, which the operator was either unable, or too timid to arrest.[*] Of the testimony of Acrell[†] and Siebold?[‡] both of whom have recorded successful cases. And of Souscrampe's operation; to be met with in the 84th Vol. of the Journal de Médicine? These facts, too, have been rejected by the generality of surgeons, believing that enlarged glands, or other tumours, have been mistaken for the parotid, which, being compressed, nearly wasted, and concealed behind the maxilla, had escaped the bistoury. In support of this opinion, a circumstance which occurred to Boyer is cited. Having removed a tumour, as large as the fist, situated in the region of the parotid, he penetrated so deep, and tied so many vessels, that he concluded he had taken away the parotid; till, on carefully exploring the cavity, he recognized that gland very distinctly, remaining untouched behind the posterior border of the jaw. And another professor of this school affirms that the operation has never been performed. Struck by the contrariety of opinion on a question apparently so easy of solution, I thought it would not be without interest to collect some recent instances of the operation, performed by surgeons whose ability and good faith could not be suspected; and to add the pathological results gathered from the fatal cases, in order to throw their united light upon this point of operative surgery. Setting aside, therefore, all the operations recorded during the last century, as nearly all liable to furnish matter for cavil, a sufficient number still remains as ample testimony in its favour.

"No one, I conceive, will question the authenticity of the operation performed by Beclard in 1823.[§] The patient died a few days afterwards; and it was readily ascertained that the surgeon had not deceived himself. The year following it was repeated by M. Gensoul, and a second time in 1826; successfully in both instances. The next two that present themselves, by Klein, of Stuttgard, and Prieger,[‖] of Kreuznach, reported in Graefe and Walther's Journal, bear a great resemblance to those above-mentioned by Verduin and Scultetus, and may be passed over as doubtful. In England, however, Mr. Goodlad, of Bury, has lately extirpated this gland, forming an immense tumour at the left side of the face and neck; prefacing the operation by the ligature of the carotid. The cure was not lasting. The patient sank under a return of the disease fifteen months afterwards.* A case of the same nature occurred to Mr. Carmichael with successful result; but leaving paralysis of the muscles of that side of the face.† In France the operation has been lately practised by M. Lisfranc‡ in 1826; and the same year by M. Idrae, of Toulouse. In the former death took place on the sixteenth day after the operation;§ and the examination, conducted in the presence of the members of the Academy of Surgery, completely satisfied them as to the fact. As to the operation of M. Idrae, published in the Ephemerides Medicales de Montpellier, the extirpation of the entire parotid may appear somewhat doubtful. It is not easy to comprehend how M. I. could have carried into execution the deep dissection he describes, without opening a vessel, or needing a ligature, except to the central pedicle of the tumour, in which pulsation was felt; unless either the parotid itself had been singularly flattened and forced inwards, and thus overlooked, or the vessels had been obliterated by the pressure, of which circumstance M. Lisfranc alone has made mention."

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[*] Vid. Commercium Litterarium Norimbergæ, An. 1733, p. 61.
[†] Comment. Lepsiæ, Supplem. p. 659.
[‡] C. G. Siebold, Parot. schirros. felic. ext. hist. Erfurti, 1781.
[§] Archives Gen. 1824. Johnson's Journal, June 1824.
[‖] A second case by Dr. Prieger, is published in the 2d No. of Rust's Magazine, for 1825, and given, from Dr. Johnson's Journal, for July, 1826, at the end of this thesis; of the authenticity of which there can scarcely be a question.

M. P. next goes through the anatomical relations and structure of the gland; and then speaks of other methods of extirpation, described by several surgeons. Of that by a single ligature, proposed and executed by Rookhuysen; and by numerous ligatures, practised by a Swiss surgeon, both probably for tumours of lymphatic glands. Of the use of caustic also, recommended by Desault and Chopard, but attended by too great inconveniences to be adopted in practice.

Having taken this survey of the history of the operation, the author proceeds to the detail of the two operations of M. Gensoul, from notes furnished by himself.

The first case is that of "Jean Michel Fauce, æt. 63, a manufacturer of Lyons, of a strong constitution, and sanguine temperament. He first perceived the tumour over the right parotid, April, 1824; it was then about the size of a bean, and remained stationary for a short time. It soon, however, made rapid progress; the skin became red, ulcerated, and a grayish sanies was poured forth.

"At his entrance into the Hôtel Dieu, July 16th, 1824, the tumour had acquired the size of a hen's egg, and was the seat of such severe pains as to deprive him of sleep entirely. It did not appear adherent to the parotid. A limpid serous fluid was constantly discharging from some fistulous orifices at its upper part. I plunged a lancet into a point where fluctuation was manifest, and gave exit to a small quantity of blood mingled with streaks of a gray matter. Some days afterwards, the man suffering but little, believed himself cured, and left the hospital contrary to my wishes, but, as I had foreseen, soon re-entered it, on the 4th of September following. The tumour having been improperly irritated by topical applications, had then acquired a more considerable volume; the edges of the ulcer were tumid, everted, and of a grayish aspect, and furnishing a fœtid sanies in abundance. The tumour, before moveable, now seemed fixed to the parotid, which was itself enlarged, and very painful—compared by the patient to needles plunged into the part. I directed some leeches to be applied round the gland, and repeated them some days afterwards, with the effect of reducing the surrounding swelling a little, but not checking the progress of the disease. Sloughs formed upon the ulcer, now daily increasing, and exhaling the peculiar odour of cancerous affections. The rapid increase of the ulceration, and the sufferings and despair of the man, prevailed on me to yield to his entreaties, and decide upon attempting the extirpation of the disease, and I proceeded to perform it on the 20th of September, 1824. Having placed the patient conveniently, I surrounded the tumour by two semi-elliptical incisions, of six inches in length, in the long diameter of the gland, leaving an interval of three inches in the middle between them. After having separated the tumour from the masseter, the edge of the lower jaw, and the mastoid apophysis, I endeavoured in vain to break through its deep adhesions. The blood now flowed profusely, and the size of the tumour interfering with the dissection at its base, I detached that portion which was free, whilst the fingers of my assistants restrained the hæmorrhage. The dissection was continued with the aid of a director and the nails; and lastly, what remained of the gland was seized by the forceps, and cut away by the scissors, curved in their flat direction.

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* Med. Chir. Trans. Vol. 7.

† Trans. of King and Queen's College, Vol. 2d, Dublin.

‡ Revue Med. 1826. Johnson's Journal, April, 1827.

§ From ulceration in the coats of the stomach, the wound being very nearly healed.

"Eleven arteries were tied successively, including the external carotid. The facility with which I was able to pass my fingers over the masseter, pterygoid, and sterno-mastoid muscles, the posterior border of the jaw, and the styloid and mastoid processes, satisfied me beyond doubt that I had abstracted the entire parotid. I then brought together the lips of the wound, and retained them in contact by adhesive straps, and directed the application of very cold water frequently, to moderate the intensity of the inflammation. The tumour was composed of a mass of gangliform tubercles, of grayish structure, lardaceous, and elastic; some of them softened, and containing fluid. Beneath them a decidedly scirrhous structure presented itself, and beyond that some glandular granules of the parotid were recognised, slightly increased in volume. The trunk of the facial nerve was seen on the posterior surface of the tumour, and at its anterior border, a portion of the stenonian duct. The wound proceeded regularly towards cicatrization, and when the patient left the hospital, October 28th, it was reduced to the size of a ten-sous piece. Some fungous vegetation on the surface obliged Fauce to return, Nov. 11th, and I immediately cleared away every particle which appeared of a scirrhous character. After the healing of this wound, however, lancinating pains and induration were perceived in front of the tragus, and the anterior part of the cartilage of the meatus auditorius, together with the tragus, were removed.

"The effect of this proceeding was the disappearance of the pains, and the perfect cicatrization of the wound; and he finally left the hospital, January 9th, 1825. The muscles of the face on that side were paralyzed, but not completely, and he appeared to regain power daily.

"Fauce had scarcely left the hospital, when he determined, as he said, to celebrate his recovery, and abandoning himself to his favourite liquor, eau de vie, he gave himself up to most complete drunkenness some days. It was not long before a severe inflammation of the gastro-hepatic apparatus developed itself, and after suffering the consequences of his imprudence for some months, he sunk under the disease, June 16th, 1825, six months after the healing of the wound.

"The dissection exhibited a fibrous substance behind the angle of the jaw, supporting the cicatrix; the meatus auditorius, facial nerve, carotid artery, and parotid duct, divided as described above, and not the smallest vestige of the parotid gland.

"I removed the gland on the opposite side, for the sake of comparison, and it was impossible to discover any sensible difference between one side and the other.

"The gastro-duodenal mucous membrane was of a reddish violet colour. The liver much enlarged, and filled with tubercles, some of them softened, and containing fluid similar to the yolk of an egg. The heart was small; the large vessels strongly injected."

"The second case is as follows:—Eleonore Torque, ætat. 39, of strong constitution, and habitually regular, having enjoyed perfect health all her life, became aware at the commencement of 1821, of the existence of a tumour in front of the lobule of the left ear, at that time as large as a nut. It was moveable beneath the skin, which was not altered in colour, and pressure gave no pain.

"After some time it increased considerably, and she consulted several physicians of Grenoble and Lyons ineffectually. Very shortly acute pains shot through the tumour, and it augmented in size to such a degree that she determined upon entering the wards of the Hôtel Dieu, April, 1826, and to undergo any operation which might be necessary. It was now as large as the double fist, hard, unequal, indolent, and without any alteration in the colour of the skin, and extending from the zygomatic process over the superior third of the neck.

"I proceeded to the operation, April 17th, in the presence of several distinguished surgeons of this city, and a great number of pupils.

"Taking my station on the left side, with a convex bistoury, I made a vertical incision of seven inches in length, from the zygoma to a point about two inches below the angle of the jaw, through the skin which I dissected back carefully. Having thus exposed the tumour, it was raised with a hook; its circumference adhered to the neighbouring parts by loose cellular tissue, through which I dissected from below upwards with much circumspection. Notwithstanding all my care, the external carotid was divided, and having placed a ligature upon it, the operation was completed without the interruption of any other accident. The deep cavity left by the abstraction of the tumour presented in front, the masseter; behind, the anterior border of the sterno-mastoid muscle; superiorly, it was bounded by the zygoma; in the depth of the cavity, and below, the finger came in contact wiih the styloid process, and the muscles attached to it. The internal carotid artery, the internal jugular vein, and pneumogastric nerve, were exposed near their entry into the base of the skull. The nerve of the seventh pair had been divided at its exit from the stylo-mastoid foramen.

"The wound was dressed in the same way as the preceding. The ligatures separated on the fourteenth day, and it was completely healed by the thirtieth, leaving paralysis of that side of the face."

Before giving the conclusions which the author has added to his thesis from Berard, the second operation of Dr. Prieger, and a successful case by Mr. Kirby, of Dublin, may be cited, to give them still greater weight. The subject of the former was a woman, æt. 43, mother of eight children, and of a weak constitution. The tumour had gradually increased from its first appearance, nine years before, till it had reached an enormous magnitude, protruding over the zygoma superiorly, the chin inferiorly, weighing the face down upon the breast on that side, and extending backwards over the mastoid process. Its breadth across the lower part was eight inches.

The tumour now began to be painful and red, and the patient daily more cachectic; and Dr. P. performed the operation the second day he visited her. There was some difficulty in dissecting the tumour from its adhesions, and turning it out. The carotid was laid bare, but not divided. The portio dura and inferior maxillary nerves, were cut through, and eleven arterial branches secured. "Not a trace of the gland itself, or the glandula accessoria, was allowed to remain." The tumour weighed three pounds and a half, apothecaries' weight; but the description of its structure is very undefined; "uneven, tumulated, and of a very fine consistence." The operation was performed on the 7th of September; on the 20th, the ligatures were withdrawn; and on the 1st of October the patient left the hospital perfectly cured.

Mr. Kirby's case is detailed in the April number of Dr. Johnson's Journal for 1826, and from the particulars of the operation, no doubt can be entertained of the entire removal of the parotid. Mr. K. states that Sir A. Cooper, in a letter to him, mentions that he twice removed the parotid in one year.

The conclusions drawn by M. Berard from the single operation of Beclard, are fully warranted by the above cases; viz. 1st, that the carotid in a scirrhous state can be entirely extirpated; 2d, that the carotid, and its larger branches, are of necessity implicated in the operation; 3dly, that it is impossible to spare the facial nerve, and therefore that paralysis is an inevitable consequence.

With regard to the propriety of securing the carotid before commencing the operation, it is worthy of remark that Mr. Goodlad's case was the only one in which it was performed. In MM. Beclard's, Lisfranc's, Gensoul's, and Carmichael's, it was tied during the operation; and in Dr. Prieger's and Mr. Kirby's no mention is made of the trunk of the external carotid requiring ligature; in the former it was left untouched. Although it would undoubtedly be a measure of security, there appears to be no very urgent motive why it should precede the removal of the parotid; and there must be many cases where, from the size of the tumour, it would not be practicable.

69. *Aneurism of the Right Subclavian Artery, treated by Ligature on the Distal side of the Tumour.* By Professor Dupuytren.—N. aged forty years, labourer, of middle stature, brown complexion, vigorous constitution, has never been sick, nor experienced any hæmorrhagy, or exhibited any indication of a decided predominance of the circulatory system, was admitted into the Hôtel Dieu, May 28th.

June 12th.—He has been bled seven times since his admission. The tumour presents the following phenomena. From its exit between the scaleni muscles to the level of the clavicle, the artery had acquired the volume of a common-sized egg. Upwards and outwards it rose towards the edge of the trapezius, forming in this situation a considerable protuberance. Below the clavicle, the artery did not appear diseased. The trunk of the primitive carotid was sound. The pulsations from the commencement of the subclavian and trunk of the innominata were strong and full, announcing a dilatation of these canals without which the precise nature of this alteration could not be established. The general health was very good, the heart giving no abnormal sound, except that the pulsations of the ventricles are strong and sonorous, and perceptible over a considerable surface. The respiration was easy, with scarcely any cough. The right arm and hand were a little œdematous. The whole of this extremity was affected with great numbness, accompanied with painful twitches. The bowels were indolent, the stools regular, the tongue healthy, the sleep undisturbed, and the mind tranquil. The disease had made its appearance only about five months previously.

The extent and seriousness of the disease left the surgeon but few resources, and these very precarious. The subclavian would not admit of a ligature at any part; even had the plan proposed by M. Delpech been pursued, of uncovering the artery on the internal side of the anterior scalenus, the strength of the pulsations not allowing the belief that the vessel was healthy at this part. To apply a ligature on the trunk of the bachio-cephalic, as practised by Dr. Mott in 1818, and by Graefe in 1822, could not be thought of in consequence of the pulsations extending even behind the sterno-clavicular articulation; it therefore only remained to place a ligature beyond the tumour. This operation was therefore determined on by M. Dupuytren, and performed in the following manner:—

An incision three inches in length was made parallel to the clavicle, and two fingers breadth below it. The skin, cellular tissue, and pectoralis major, were slowly divided. The pectoralis minor being about half divided, and many small arteries successively tied, a bundle was reached, in the middle of which the axillary artery was felt; but it was covered by the vein of the same name enormously dilated, and pulsating in consequence of its vicinity to the tumour. The operator separated the parts by means of the canulated sound, and passed the ligature round the artery. The instant the circulation was arrested, the aneurismal tumour gave about twenty strong pulsations, and its volume appeared sensibly increased; but it soon resumed its physical characters without any further trouble. Scarcely two spoonfuls of blood escaped during the operation.

On the same day the patient was *bled in the arm*, and recourse was had to refrigerants applied to the tumour, mucilaginous drinks, anodyne draughts administered every third hour, and half a grain of acetate of lead in distilled water.

The tumour, the size and pulsations of which had appeared to increase, began now to diminish, and up to the 17th day no untoward circumstance was manifested. On this day, however, some excitement and efforts to cough were observed. *Bleeding in the arm* about the middle of the day; some compresses applied to the wound were found to be tinged red; *three porringers of blood taken.* At the evening visit the oozing continued; *a third bleeding.* Passed a quiet night; a strict diet, with the acetate of lead and antispasmodic infusion continued.

18*th.*—Symptoms the same; *a bleeding to the extent of one porringer.* 19*th.*—The wound with a good aspect, but the bottom swelled as if the tumour was developing itself in this direction; *another bleeding of one porringer.* During the day a few spoonfuls of broth were allowed every two hours. The abdomen soft, bowels indolent. The patient complaining only of a little dyspnœa and weakness; he sleeps now and then, and retains his intellectual functions. 20*th.*—Continues the same; a little blood of a vermilion colour tinged the dressings; the tumour considerably smaller; the dyspnœa a little increased. The patient sunk and died at four o'clock on the morning of the twenty-first.

Dissection.—The brain in a healthy state. On opening the thorax, the tissues appeared discoloured and inflated; considerable sanious serum in the pleural cavities; posterior margin of the right lung hepatized and friable. The heart pale, flaccid, wrinkled, and double its natural size; the ventricles dilated and very thin; the aorta from its origin to the diaphragm dilated and thickened, the internal coat scattered with large red patches of a violet shade; a rough fungous appearance observable in many places; loss of substance in circular forms resembling ulceration; the cellular layer uniting the two internal coats, transformed into a red, violet, consistent substance with some spots of bone. Below the intercostals the artery healthy; the brachio-cephalic trunk very much dilated, and exhibiting the same alterations of structure. The right subclavian presents similar lesions to be observed in the aorta, but in a much higher degree; dilatation of the three coats from its origin to the scaleni; the artery, forming a kind of pouch, is contracted between the last named muscles, but beyond these it increases in volume, forming the tumour before described. With the exception of some layers, this contained but few clots; the anterior portion of the remainder of the sac fungous; about the middle part the first coat very nearly wasted. The alterations in the arterial parietes suddenly terminated four lines above the ligature. The whole of the digestive apparatus was sound, the liver and spleen soft, and engorged with blood.—*Journal des Progrès, tom. XVI.*

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70. *Mode of stopping Hæmorrhage by twisting the Mouths of the Vessels.*—M. Amussat communicated to the Royal Academy of Medicine, at their meeting of the 16th of July, last, this method of arresting hæmorrhage, which was, however, not unknown to the older surgeons, and is at present practised in veterinary surgery. Though we cannot for a moment believe that this mode will ever supersede the use of the ligature as proposed by M. A. we nevertheless think the views of M. A. of sufficient interest to lay them before our readers.

Reflecting on the well known fact that lacerated wounds are frequently not followed by hæmorrhage, M. Amussat conceived the idea, that methodically twisting arteries might perhaps be attended with the same result. A number of experiments were accordingly made on dogs, rabbits, horses, &c. and the following proceeding found to answer the purpose. An artery being cut across, the extremity is seized by means of a pair of forceps, the branches of which are closed by a spring. The end of the vessel is dragged out from the surface, for the distance of five or six lines, disengaged from the neighbouring parts, then seized with the thumb and forefinger of the left hand, and twisted five or six times upon its axis by means of the forceps in the right. The twisting ought to be continued till the portion of the vessel in the bite of the instrument is broken. The end of the vessel now forms a cul-de-sac, which resists the impulse of the blood from behind, and is seen and felt to pulsate strongly. The twisting appears to act by rupturing the middle and internal coats, which instantly retire into the interior of the vessel, and form a sort of plug or valve, whilst the vessel itself looks like a stump, enveloped and capped by the cellular membrane. If the vessel before being twisted is not seized with the left hand, it is injured up to the next collateral vessel. M. Amussat has tried the method twice on the human subject, once after extirpation of the testicle, and once after amputation, with success. Such is the substance of the first communication to the academy; in the second, some points are touched on more at large.

In the first place, the effects of torsion or twisting are the same on arteries and veins; secondly, simple torsion, when employed to prevent hæmorrhage from arteries of considerable caliber, should consist of ten half turns; thirdly, that twenty half turns completely rupture the artery; fourthly, that after the complete or incomplete section of an artery, the torsion should be made on each extremity; fifthly, that after a twisting methodically made we need never fear secondary hæmorrhage; sixthly, that torsion employed on the arteries of the dead human subject is attended with exactly the same effects, as to the vessel, as in living animals, namely, the rupture of the inner coats and their retraction within the arterial tube, whilst the cellular membrane round them forms a kind of *capachon*; seventhly, that if the arteries are ossified, torsion breaks them; eighthly, that if we inject liquid into the twisted artery with whatever force we please, it does not escape by the twisted extremity, though sometimes the retracted inner tunics are driven out by the fluid, and the cellular membrane more or less distended; ninthly, that torsion has *all* the advantages of the ligature, *without* its inconveniences, and should instantly be adopted by army surgeons in particular.—*Journal des Progrès, Vol. XVI. & Journ. Hebdom. Nos.* 43–44.

71. *Hernia of the Muscles.*—After accidental openings made in the fasciæ by surgical operations, wounds not surgical, or violent efforts, it frequently happens, says M. Dupuytren, that the muscles during their contraction pass through the apertures, and form true hernial protrusions. They are sometimes very painful, and prevent the patients from using their limbs, and especially from walking, unless they are treated by appropriate bandaging. Occasionally the tumours thus formed gave rise to strange errors in diagnosis, and consequent mischief in practice. A young man, for instance, a son of one of the members of the conseil général des hôpitaux, fatigued himself greatly in mounting a horse *à l'Anglaise*, whose manner of riding is well known to exercise greatly the muscles of the calf. A tumour supervened on the inner and posterior part of the leg, which was extremely painful on walking, or even standing still. When the patient lay down, the tumour disappeared and the pain subsided. Several practitioners were consulted on the case, some of whom thought it was a varix, others an enlargement of the nerves, but M. Dupuytren detected a protrusion of the muscles, such as has been mentioned above, and applied a bandage with complete success.—*Med. Chir. Rev. from the Journal Hebdom. No.* 40.

72. *Extraction from the Bladder of a piece of Twig, seven inches long, and surrounded with Calculous Depositions.*—M. Louis Senn, a practitioner at Geneva, has detailed the following case in *La Clinique.* M. Perial, a lad aged 19, of robust constitution and small stature, was sent to him by M. Maunoir on the 6th of June. For about a year this young man; (a peasant,) suffered from pain in the bladder, greatly increased by passing his urine, or evacuating the bowels. From time to time some small portions of calculi had been expelled with the urine; and a short time after his arrival at Geneva, M. C. Maunoir had extracted by means of a common pincers, from the urethra, a piece of twig, from two to three inches long, which, at its posterior extremity, had an incrustation of phosphate of lime, which presented an impediment to the urine. When he was questioned as to the presence of the foreign body, he said, that not being able to make water, he had introduced the twig for the purpose of sounding himself!

M. Senn wishing to examine the bladder with a common catheter, encountered at the prostate portion of the urethra, a foreign body, which interrupted the passage of the instrument. When this had been passed, and the instrument got into the bladder, other foreign bodies were discovered there. The patient was free from fever; and being in a favourable state for the operation, it was performed next day. On the 8th of August a clyster was administered, which returned along with other matters; and shortly after, the operation was commenced. Exploration with the catheter discovered, as before, foreign bodies in the bladder, which could not be made on striking against them to emit a clear or distinct sound. The method usual in lithotomy was adopted. The finger being introduced into the bladder, a calculus was felt, which broke beneath the forceps, and was taken out in parts. The instrument was several times introduced, a large calculus laid hold of, which, however, always escaped its grasp. At length a piece of twig, from six to seven inches long, was drawn out, having three calculous depositions upon it. The part between these was occupied by fragments, and it was evident that portions had been broken off by the forceps, and now remained in the bladder. By numerous injections, these were removed, and the patient did well. Being now strictly questioned, Perial acknowledged that he and his companions were in the habit of introducing foreign bodies into the urethra for the purpose of gratifying venereal feelings. He has now returned to the country to caution others, by a relation of his own danger and his sufferings.—*La Clinique.*

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73. *Fracture of the Vertebral Column—Symptoms of Compression of the Cord—Complete Recovery.*—L. Jean-Marie, a mason, aged 28, of sanguineous temperament and robust frame, was admitted into the Hôtel Dieu, Sept. 3d. On the 27th of August he had fallen from the second floor of a house, and fractured his back at the site of the tenth dorsal vertebra: the existence of fracture was ascertained by M. Berard: the patient had been bled four times during six days, by a medical man who was called immediately after the accident. At the moment of the fall he became insensible, but this state soon passed away, and it was not till the second day that signs of compression were evinced by paralysis of the left inferior extremity, at which time symptoms of inflammation had come on. On his arrival at the Hôtel Dieu, he was bled again.

Sept. 4th.—At the visit to-day, the fracture of the vertebral column was manifested by a considerable projection of the last dorsal vertebra, which formed a curve of three inches, the convexity of which was towards the right, and of course the concavity to the left. No attempt was made to verify the existence of fracture, by producing crepitus, as it was feared by so doing, the fragments might be thrown into a less favourable position. The left leg was without sense or motion; the right retained its functions, as did the bladder and rectum. The patient was placed in a position as nearly horizontal as possible, the loins being supported on a hollow pillow. A sheet was folded like a cravat, and passing across his chest, was fixed to the bars of the bed, so as to retain him in the recumbent posture. During the night, (4–5th,) he had delirium, with febrile reaction. He was bled to the extent of three palets, and twenty-five leeches were applied in the course of the jugulars.

5th.—The patient calmer, notwithstanding which a straight waistcoat, which had been put on the preceding night, was retained. He was cupped on each side of the spinal column, at the seat of injury.

7th.—The cerebral symptoms gone, but the paralysis of left lower extremity continues: cupping repeated as before.

From this time gradual improvement took place, but the patient was rigorously prevented from moving, and no examination of the fracture ventured upon. By degrees the sensibility and power of motion returned in the paralysed limb; by the end of September the former was nearly restored, but the latter came more slowly.

Oct. 14th.—The sensibility and power of motion are now nearly the same on the left side as the other; the projection of the vertebræ, though still perceptible, is much less than before. He has not yet been allowed to move from his bed, but his recovery is regarded as secure.—*Ibid.*

74. *Cancer of the Rectum.*—M. Lisfranc exhibited to the Royal Academy of Surgery, at their sitting of the 10th of September last, a woman, from whom he had excised three inches of cancerous rectum. The woman had perfectly recovered.—*Archives Générales, Oct.* 1829.

75. *Extirpation of the Tongue.*—Dr. Graefe recommends in extirpation of the tongue, on account of carcinoma, the following method in order to avoid hæmorrhage:—A thread is carried through the anterior portion of the tongue, in order to fix it and draw it out as far as possible; in this position an incision is made from the margin of the tongue, to about a third of an inch from the median line; the lingual artery being thus divided, is easily tied, and the operation without any difficulty terminated by a longitudinal incision. If the disease occupies both sides of the tongue, one transverse incision is made, and the artery tied in the manner described, and then the same having been done on the other side, the middle portion of the tongue is divided by means of a bistoury. By this method, the extirpation of the tongue, even very near its root, has been performed by Dr. Graefe without any great hæmorrhage.—*Journal für Chirurg. und Augenheilkunde,* 1829.

76. *Case of Foreign Body in the Trachea.* By Charles Bell, Esq.—Sept. 1. Mary Waters, ætat. 9, was admitted in the hospital at nine o'clock this morning, with symptoms of suffocation. The report given by the friends was, that yesterday afternoon, being in school, and eating a plum, the child laughed, and was reprimanded by the mistress, who gave her at the same time a slight tap on the cheek; at that moment the child was sensible that the plum-stone had got into her throat. She was immediately seized with a difficulty of breathing, which has continued, with occasional severe attacks ever since. A probang was passed into the œsophagus, and an emetic was given to her, before she came into the hospital.

It was evident that she required immediate relief. Mr. Bell said that he slipped unobserved to her bed-side, so as not to disturb or frighten her, for the purpose of examining her manner of breathing. She lay with her head raised high; she was restless, shifting her position, and tossing her arms; her chest rose high, and her nostrils were dilated; the sound of her breathing was hissing, husky, and impeded—it was in sudden gasps.

Having collected what tubes, probes, and forceps were likely to be of use, the child was laid on pillows, placed on the table so that her position was inclined, not horizontal. This was done for two reasons—because a person breathes with difficulty in the horizontal posture; and because it permits the blood in the wound to flow outwards.

An incision was made through the integuments an inch and a half in length, the centre being opposite to the cricoid cartilage. The thyroid and guttural veins were seen turgid: it was not possible to avoid them, and they bled freely. Continuing the dissection on the forepart of the trachea, a small artery, the thyroidea anastomotica, was divided, and the wound bled considerably, so that the incision into the larynx was delayed a few minutes. The point of the scalpel was then thrust into the membranous space between the cricoid and thyroid cartilages. The child did not appear at all relieved, or in a very slight degree, by this opening.

"My disappointment was now considerable. When I had done this operation before, the relief was immediate: no sooner had the point of the knife penetrated the membrane than the harsh sawing sound of the voice ceased, and the air came *siffling* through the wound; and when the end of the scalpel was used to hold apart the sides of the slit, and a quantity of mucus was discharged, the breathing was composed and easy."

The probe was passed upwards through the glottis into the pharynx, but nothing foreign was found interrupting the passage. The probe was then passed from the wound in the larynx down into the trachea, with every precaution, lest the foreign body might be thrust downwards by it; but nothing was to be discovered there. At this time the breathing was worse; the child's colour was darker, and a degree of insensibility prevailed. A portion of a large gum catheter was passed down into the trachea, and retained there, and the child's face and neck were bathed with cold water. The breathing became sensibly easier, and the freshness of colour returned to the cheeks and lips. The tube being withdrawn, further attempts were made to discover the stone, but without avail. Mr. Bell at this time thought of putting the child to bed, but resolved to leave nothing undone, he explored the passage once more. He felt the pharynx with his finger introduced into the mouth. He then passed the catheter by the wound through the chink of the glottis, and examined the sacculi laryngis; he then sounded deep into the trachea; and he thought he could feel a roughness more than belonged to the cartilages. He therefore enlarged the incision downwards, and having bent the end of a probe so as to make a little hook, he passed it down into the trachea: by means of this, he succeeded in catching the edge of the stone, and brought it to be visible in the wound; then with the small dressing forceps, he extracted it. It was half of the stone of a plum, and it had lain with its rough convex surface towards the concavity of the tube.

Immediately after the stone was withdrawn, the child opened its eyes and looked about, apparently with the conviction that the thing was accomplished. Nothing could be more striking, during the whole of the operation, than that a child so young should have so perfect a notion of the necessity of something being done for its relief, and that it should remain so submissive.

The wound was dressed superficially, and the child was put to bed, breathing freely—to the great delight of those present, for it had been abundantly apparent that it was an affair of life or death.

Evening.—The child is perfectly quiet, and has slept a great deal.

Sept. 2d.—She is remarkably well; she speaks low, and complains of hunger. She breathes at present with perfect ease, and has done so ever since the operation. Leeches have been applied to the neck, and she has had some laxative medicine.

Sept. 12th.—The child is running about, and is quite well; but the wound is still open, and the granulations projecting. The zinc lotion is ordered, with compression by adhesive strapping.

Sept. 22d.—The wound is healed. Mr. Bell said that the father, with the child in his hand, came running after him as he left the hospital to return thanks. When he said to the father, "I am distressed that the child has not recovered its voice:" he replied, "It was only her shyness; she speaks as well as ever she did in her life."—*Lond. Med. Gaz. Oct.* 1829.

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77. *Observations on the Operation of Laryngotomy.* By Charles Bell, Esq. Extracted from a Clinical Lecture.—A case lately occurred in Dublin, attended with curious circumstances. A boy had rubbed down a plum-stone in its centre, so as to open its cavity, and make a whistle of it. While practising upon this whistle, it suddenly slipped into his windpipe. He could breathe, notwithstanding, without much difficulty, although he had occasional paroxysms of suffocation. Several days had elapsed before he presented himself at the hospital. To satisfy those around him that the stone was still in his windpipe, the boy began to whistle of his own accord, upon his instrument. Without puckering his lips at all, he could produce a very clear whistle by merely throwing out the breath from his chest. With this evidence, the surgeon made an incision into the trachea, and when he had pushed a catheter through the chink of the glottis into the mouth, the boy called out that he felt the stone, and had swallowed it. Three days afterwards, however, he was again heard whistling as before. The breathing had continued impeded, and it was found

also by the use of the stethoscope and percussion on the chest, that the lungs on one side did not expand in breathing. It was inferred that the foreign body was probably still lodged in the trachea, and that it might be covering one of the divisions of the bronchial tubes. The incision in the trachea was therefore enlarged a little downwards, and the stone was expelled shortly afterwards during a fit of coughing.

In illustration of this fact, that a foreign body may be expelled by coughing, you will find some very interesting experiments performed upon dogs by M. Favier, as quoted by Sabatier. He popped a foreign body into the glottis at the moment of inspiration. The animal was immediately convulsed, and it was thought he must have died, but he became so quiet that they deferred the further part of their operation for six hours. They then opened the trachea by dividing three of the cartilages, when the body was immediately forced out. The experiment was ten times repeated with a nail, a ball of lead, &c. and although these were pushed deep with instruments, the body was cast out the moment the incision was made. These experiments were performed to oppose the opinion which declared the operation of bronchotomy to be precarious from the difficulty of discovering the body.

Do not delay performing the operation after you have ascertained that a foreign body is in the windpipe, because the child may be suffocated in the instant by the body rising from the depth of the windpipe, and being caught in the glottis. Thus a child, after drawing a cherry-stone into its wind-pipe, was nearly choked, but suddenly got relief; and sometime after, while playing on the carpet, it was seized with another fit of suffocation, and died. The cherry-stone was found in the sacculus laryngis, and there can be no doubt that in the period between the two attacks, the cherry-stone had lodged deep in the windpipe, but that during the gambols of the child it had fallen forwards into the larynx.

In Pelletan's Clinique Chirurgicale you will see a case where the surgeon performed bronchotomy on a child, and extracted a bean. The weakness of the child after the operation was such that they believed him dead; but he recovered, called on his parents, and cried to have his playthings, and yet this boy died in fourteen hours. Another boy had the operation performed, and died in consequence. The expression is strong—"*le coup mortel etait porté:*" although he lived for two months. Now the fatal termination in these cases was attributed to a gorging of the brain; and there is no doubt that a long-continued struggle for breath affects the circulation in the head in a very remarkable manner. But it affects the lungs more directly and more violently. When a person dies from suffocation, owing to some disease of the throat, the lungs do not freely collapse on examining the body. Here, then, there is a proof that they have suffered, and to this danger I call your attention particularly. But let us in future be alive also to the observation of Pelletan, of what takes place in the brain.

For some time after this operation I was very anxious for the child's life, and I shall state the reason of this anxiety. A woman was brought into the hospital, who, in her frenzy, had plunged a penknife into her throat. It pierced the upper part of the thyroid cartilage, and entered at the union of the cordæ vocales. She was suffocated at the end of some months by the granulations which filled up the passage of the glottis. Another young woman, attempting to destroy herself, drew a penknife down the forepart of her throat—not in the vulgar way of cutting it across. She thrust the knife into the trachea, and divided five rings of the tube. She survived the first effects, but was suffocated by the retraction of the cut edges of the cartilages, and the swelling of the inner membrane, which thereby diminished the capacity of the tube. You see, therefore, the source of my anxiety. When we saw the granulations spring out from this wound, it was natural to apprehend that such granulations might also sprout inwards. With regard to the possibility of the divided cartilages retracting, the manner in which I operated might possibly prevent this; for you will observe that my first incision was made through the membranous space between the thyroid and cricoid cartilagès; and when I enlarged it, I cut through the cricoid cartilage. Now you mark the peculiarity of this cartilage—that it is a complete circle, and that when divided, its edges will resume their place, being supported by the continuity of the hoop on the back part. The cartilages below, that is, the cartilages of the trachea, are not complete hoops or rings, and therefore, when divided into two lateral portions, they may be displaced and retracted more easily. However, I must not omit saying that the windpipe has been divided with this perpendicular incision, without being followed with the consequences which I have apprehended, and which I have myself witnessed. I have recommended to my young friends to make experiments to illustrate this subject.—*Ibid.*

78. *Ligature applied to the Aorta.* By J. H. James, Esq. of Exeter.—The patient, a man aged forty-four, had an aneurism of the external iliac. The situation and size of the tumour seemed to preclude any attempt to tie it above; and I was induced to adopt the plan revived by Mr. Wardrop, of applying a ligature on the femoral below it. This was done on the 2d of June, and it was at first followed by a very sensible decrease in the tumour; but shortly the ground gained was again lost; and after considerable further enlargement, it became evident that the process of sloughing was about to take place. Under these circumstances the patient's situation was fully and explicitly stated to him, and he having judged that it was better to take the only chance which remained than perish by bleeding, his nearest relations also having given their full and deliberate assent, I performed the operation alluded to on the 5th of July, nearly in the situation in which it was done by Sir Astley Cooper. Much difficulty was experienced from the great and very embarrassing protrusion of the bowels. The ligature, nevertheless, was applied, but the patient died in the evening, having suffered extreme pain in the aneurismal limb from the time the ligature was drawn.

On examining the body, it was found that the ligature had been applied to the aorta without including or injuring any other part. It was also ascertained that the probable reason of the failure of the first operation arose from a cause that could not have been foreseen, namely, that instead of the usual distribution of the arteries below, the external iliac in this case divided into two nearly equal trunks; and although the artery corresponding to the femoralis superficialis had been correctly tied, the channel through the other remained open. The weight of the tumour was nearly four pounds. I shall only further add, that circumstances prevented me from performing the operation from the side of the abdomen, or from tying the common iliac, which I should have preferred, if practicable.—*Lond. Med. Gaz. Aug.* 1829.

79. *Cancer of the Lip.*—The general plan of removing cancerous sores of the lip, by including them in two incisions meeting at an angle, Mr. Syme considers as advantageous only when the disease affects the lip to some depth. When the disease is superficial, and especially when the surface is extensively affected, he thinks this operation as equally injurious as unnecessary. In such cases, he says, the surface alone requires to be removed, and if this be done properly, instead of the hideous deformity which results from removal of the lip, there is hardly any alteration to be perceived. It is in such cases that the plan recommended by Richerand in the Annuaire Medico-Chirurgicale, is decidedly preferable to the common one, which ought to be restricted to those occasions where the lip is deeply affected. Mr. S. finds on a comparative trial with other means, that the curved scissors are by far the most convenient for effecting the removal in question; but instead of healing the wound by granulation, according to the advice of Richerand, it is much better to unite the skin and mucous lining of the lip by means of sutures, either twisted, or what answers better, interrupted.—*Ed. Med. and Surg. Journ. Oct.* 1829.

80. *Fracture of the Olecranon.*—Two cases of this were admitted into Mr. Syme's Surgical Hospital at Edinburgh, in which the symptom usually considered as characteristic of this injury, viz. a separation or drawing up of the broken process to some distance from the shaft by the action of the triceps, was absent. Sir Astley Cooper has observed that this symptom is occasionally prevented by the strong fibrous covering of the bone at the injured part remaining entire. This observation is important, since a surgeon not acquainted with it might readily overlook the true nature of the accident, though the diagnosis is still easy, owing to the mobility of the fragment in a transverse direction. Mr. Syme says that he once experienced much difficulty in treating a case of this kind, from a morbid accumulation of synovia consequent on the injury. Having found more gentle means unavailing, he evacuated the fluid by a small puncture, and then speedily obtained a cure.—*Ibid.*

81. *Fistula in Ano.*—Mr. Syme indicates the following circumstances as of most importance to be recollected in the operation for this disease:—"1st. That the internal opening must be included in the incision of the sphincter; 2d. That when the internal opening exists, which it almost invariably does, it is situated very close to, or rather at the sphincter;* 3d. That it is not necessary to divide the gut higher than the internal opening; and lastly, that no dressing ought to be interposed between the cut edges, at all events, not after the second day." Mr. S. thinks it truly astonishing that so many practitioners should still remain unacquainted with these important facts, which lead to a practice as simple and successful as the one, or rather the many, which preceded it, were operose, distressing, and inefficient.

Fistula in ano is too frequently connected with morbid conditions of the lungs and intestines, equally fatal and incurable; but where it exists without such complication, Mr. S. thinks it ought to be regarded as one of the most simple and satisfactory subjects of surgical practice.—*Ibid.*

82. *Case of Retention of Urine and Paralysis of the Bladder, cured by Extract of Nux Vomica.*—This case is related by M. Lafaye, *Journal de la Soc. Roy. de Méd. de Bordeaux.* The retention did not appear to arise from any disease, or from a foreign body in the urethra, but to depend entirely upon paralysis of the bladder. The patient, a man sixty-six years of age, took at first two grains of the extract of nux vomica, morning and evening, and the dose was afterwards increased. In six weeks the patient was entirely cured.

83. *On the Period at which Amputation should be performed.* By Wm. Lawrence.—There is a patient in Darker's ward, who has undergone amputation of the leg below the knee: there was also another patient who lately left the hospital, that had the thigh amputated. I mention these cases, because they tend to throw light on a point of great importance. In many instances of serious injuries, such as fractures, gun-shot wounds, and in fact, in all cases where it is apparent that the part will require to be removed, it becomes a question whether this ought to be done *immediately*, or the operation be *delayed*, and if so, how long delayed? My opinion is, that in all such cases you should operate immediately. Though I say immediately, it sometimes happens that certain nervous symptoms, such as great faintness, coldness, and alarm, are produced by serious accidents, and in this state of depression of the vital powers, the performance of the operation is not adviseable; therefore, by immediately, I should say within ten hours after the reception of the injury. In both the cases alluded to, the result of the operation has been favourable. In the woman, who was about fifty years of age, and had been knocked down by a carriage, the wheel of which passed over her leg, and dreadfully fractured the bones, the operation

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* The observation of Mr. Ribes respecting the situation of the internal opening has received less attention than it merits.

was performed under very disadvantageous circumstances. She came to the hospital very drunk—I performed the operation in the middle of the night, and she was so intoxicated that the limb was taken off without her knowing it; indeed, until it was removed, she was not aware that the operation was performed! I mention this to show, that she could not be deemed in a favourable state for the operation; recovery, however, took place without any unfavourable symptoms. When the stump was nearly well, there was a great deal of pain and heat, and this is not uncommon. These symptoms were removed by free bleeding and the application of leeches, and she recovered remarkably well. The other patient was a strong, hearty man, accustomed to hard work. Amputation was rendered necessary by a violent injury in the foot, which was entangled in some machinery, and dreadfully smashed. The amputation, as I before said, was below the knee, and he lost a considerable quantity of blood during the operation, which arose from the fulness of the blood-vessels. Next day, there was some fever, his skin dry, pulse full, tongue white, and it was found necessary to bleed him from the arm. When the stump was opened the day after the operation, it looked by no means well; in fact, in a short time it assumed a sloughy aspect; no secretion of pus took place, but a thin serous kind of fluid proceeded from it: a partial sloughing of the integument, to the extent of about an inch took place; this was accompanied by inflammation, and the parts adjoining exhibited so much of vascular action, accompanied with dryness of tongue and other symptoms of a febrile character, that I had blood taken from the arm. This, with other remedies, relieved the local symptoms, but he then passed into a state in which I deemed it prudent to allow him a little wine and water, and he slowly recovered under the employment of these means. Though he lost so much blood, there has been some inflammatory disturbance about the stump, with pain and swelling of the glands in the groin, so that it was necessary to apply leeches. He is, however, now doing well. The general result of the operation in these two cases, agrees with others where I have operated immediately after serious injuries, and I have no hesitation in saying, that I think the practice of speedy operation is by far the best in all such occurrences.—*Lond. Med. Gaz. Oct.* 1829.

84. *Amputation through the Tarsus.* By James Syme, Esq.—A girl, æt. 10, was admitted into the Edinburgh Surgical Hospital, June 4th, 1829, "on account of a caries of the foot, which had existed two years, in consequence of inflammation induced by the fall of a heavy stone on the instep. There was an opening over the middle cuneiform bone, through which a probe could be passed perpendicularly and transversely in a curved direction to the head of the metatarsal bone of the little toe, indicating throughout its course the existence of caries. There was considerable thickening of the foot at the part mentioned, but higher up it was quite natural. Amputation of the foot had been proposed, but this I was unwilling to perform, as it seemed that the operation of Chopart could be practised with every prospect of success. Having obtained full permission from the parents to do whatever was thought proper, I proceeded as follows:—Having ascertained the situation of the joint between the astragalus and os naviculare by feeling the projection of the latter bone, and that between the os calcis and cuboides by observing the middle distance between the line of the fibula and head of the metatarsal bone of the little toe, I made a semilunar cut from the one to the other, and then, instead of dividing the articulations, which I think renders the subsequent formation of a good flap very difficult, transfixed the sole of the foot from one extremity of the cross cut to the other, and then carried the knife close along the metatarsal bones, so as to detach an ample, but well-formed covering for the face of the stump. The disarticulation was next effected with the utmost ease, so as to finish the operation in a very short time, and the plantar arteries being secured, the flap was retained in its proper place by five or six sutures.

"The wound healed by the first intention, and the patient was able to put her foot to the ground in less than a fortnight. It was then observed, too, that she had regained the power of counteracting the extensors of the ankle, owing to the flexors having obtained new attachments. This is an interesting fact, as many people have objected to the operation on the ground of its leaving no antagonizing power to the gastrocnemius and other extending muscles of the joint, whence the heel would be drawn up so as to point the cicatrix to the ground. Being in Göttingen some years ago, and seeing a patient on whom Langenbeck had recently performed the operation, I particularly inquired, if, in his former cases, of which he had had two or three, any inconvenience on this account had been experienced, and was assured that there had not. The fact just mentioned will serve to explain this. About six weeks after the operation, Ann Stewart came to the Hospital, and walked into the presence of myself and pupils, when we were examining the out-patients, so that I really could not from her gait fix upon the defective foot."—*Ed. Med. and Surg. Journ. Oct.* 1829.

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85. *Exfoliation of the whole Upper Jaw.*—An extraordinary case of this is related by Mr. Syme, in the *Edinburgh Medical and Surgical Journal,* for October last. A woman aged twenty, about nine years ago became afflicted with a sore on the nose, for which, by the advice of a surgeon, she took very large quantities of mercury. The sore extended, the bones became affected, and a rapid exfoliation commenced, which soon deprived her of all the face, except the lower jaw and part of the ossa malarum. Mr. S. first saw this wretched woman about four years ago, when she presented an appearance inconceivably shocking. The eyes were divested of their coverings, the pharynx was completely exposed to view, and the tongue lay exposed from root to apex, surrounded by the foul and vacillating teeth of the lower jaw, while the whole surface exhibited a most unhealthy description of ulceration. Mr. S. saw her about six weeks ago, having not done so for a long time previous, and was surprised at the change which had taken place. A cure, so far as a cure was possible, had been completed; the whole ulcerated surface was healed, and the eyes were covered with a firm skin. She was miserably weak, and for a long period had subsisted on little else than laudanum, of which she took daily at least half an ounce. She died soon after this time, when Mr. S. fortunately obtained the whole head, and ascertained that the remaining bone was every where perfectly sound. Mr. S. says that he does not know how this cure can be explained, except on the principle of the *Hunger Cure;* and he thinks it may perhaps lead to a trial of this severe but powerful remedy in other desperate cases."

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86. *Extirpation of the Uterus terminating favourably.* By M. Recamier.—Agatha-Pelagie Bien Aimée, æt. 50, entered Hôtel Dieu on the 24th of July. There was nothing remarkable before the appearance of her present disease, that seemed to have any connexion with it, except the extreme vitality of her uterine system, manifested by the appearance of the catamenia at twelve years of age, and their not ceasing until she was near fifty.

At the time of her admission she presented the following symptoms.

1. Slight pains in the pubic region, and a feeling of lassitude in the loins that prevented her standing for any length of time.

2. A discharge of a sanious fluid, of an unsupportably fetid odour, sometimes streaked with blood from the vulva; this has lasted for eight months.

3. Only one lip of the os tincæ could be felt, the posterior having been destroyed by ulceration. The anterior was thicker than natural, and projected near half an inch, presenting a triangular form, with the apex towards the sacrum: it was ulcerated in places, and softened at its base. The same alterations were discoverable on that part of the vagina that embraced the posterior part of the neck of the uterus. There appeared to be no adhesion between the diseased parts and the rectum or bladder.

4. This latter fact was proved by introducing the finger into the rectum,

which was found in a healthy condition. But when the finger was carried higher up, a hard, knotty tumour was felt occupying the place of the uterus, and which was supposed to be that organ.

5. All the other functions in a normal state.

The good constitution of the patient, her courage, and above all the utter impossibility of saving her, except by extirpating the uterus, determined M. Recamier to undertake that operation, which had already been successfully performed by him.

In consequence, on the 26th of July, at 7 A. M. the patient was placed on a bed, in the same position as for the operation of lithotomy. M. Recamier was assisted by Professors Marjolin and Breschet, and Drs. Patrix and Blandin.

After every necessary precaution had been adopted, M. Recamier introduced the forefinger of his left hand into the vagina, till it reached the os tincæ; this served as a conductor for the introduction of a pair of forceps, with which he seized the neck of the uterus, as high up as possible, and made a slow and gradual traction. The uterus soon yielded, and was brought down to the external opening of the parts of generation. This artificial prolapsus being accomplished, the organ was firmly retained by means of another pair of forceps, both of which were held by the assistants. The operator then examined the rectum, and found that it had not followed the prolapsus of the uterus. He now passed the forefinger of his left hand between the anterior parietes of the vagina, and the corresponding face of the tumour, until it reached the duplicature of the mucous membrane of the vagina and uterus. The operator then carried a bistoury along this finger, and divided the duplicature about an inch, directing the edge of the knife towards the tumour; the instrument was then withdrawn, the finger passed through the opening, and the cellular attachments destroyed for about two inches, till it reached the fold made by the peritoneum in passing from the uterus to the bladder, this was divided by the bistoury first used, and afterwards the cut enlarged with a probe-pointed one: the large ligaments could now be felt. These were then divided about two-thirds, cutting from above downwards, and a curved needle passed round the undivided portion, which was firmly tied. The upper part of the uterus was then brought down through the opening in the vagina, and the peritoneum divided between this organ and the rectum, as well as the cellular tissue which united the posterior portion of the vagina to the rectum. He finished the operation by cutting the posterior part of the vagina, and dividing the large ligaments.

1. The posterior portion of vagina removed was two inches and a quarter in length, the anterior rather less. The surfaces corresponding to the rectum and bladder were healthy; its mucous coat was covered with ulcerations, especially posteriorly.

2. Of the two lips of the os tincæ, one was entirely wanting, and its place occupied by an ulcer. The anterior was much softer than natural, and was in the form of an isoceles triangle, one of the sides of which presented a fœtid ulcer.

3. The external part of the uterus appeared unaltered, except that where it joined the vagina, there was a large hard tumour, projecting posteriorly, with a very unequal knotty surface. This tumour, with the small size of the uterus, was the reason why the latter was supposed to be diseased. On the uterus being opened, it was found that the ulceration of the neck had extended into it, to the distance of three or four lines.

The patient slept during the day, and in the evening had her urine drawn off. Fever appeared on the second day, and lasted during the third and fourth; three bleedings, of six ounces each, reduced it. A fixed pain in the right iliac region then took place, but the application of forty leeches greatly mitigated it; these were repeated with success. On the ninth, there was a discharge of a sanious fluid, for which injections of tepid water were ordered and continued through the 10th, 11th, and 12th.

During the whole time the patient took two baths each day, and her abdomen was kept constantly covered with emollient cataplasms. Her diet was sweetened flaxseed tea.

She was examined on the 27th of August, by a great number of professors of the Faculty of Medicine of Paris; among others, MM. Dubois, Dupuytren, Roux, Richerand, &c. and the cure unanimously decided to be complete.—*La Clinique, August and Sept.* 1829.

87. *On the Reduction of Dislocations.* By M. Marx.—Until what period after luxation is it possible to effect reduction? This question, often asked, is by no means easy to answer. The cases published some time since by M. Flaubert, a notice of which will be found in Vol. III. p. 467, of this Journal, and that related by Dr. Gibson, Vol. II. p. 136, are perhaps calculated to deter surgeons from attempting reduction in cases of long standing. It must not, however, be concealed that unfortunate results sometimes occur even from attempts at reducing the most recent luxations, and M. Marx, in a very interesting memoir in the *Repertoire Générale d'Anatomie,* &c. has shown that reductions may be safely effected a very long period after the accident. Thus he relates one case of dislocated hip successfully reduced on the seventy-eighth day after the accident; and three cases of dislocation of the shoulder, successfully reduced, the first on the eighty-second, the second on the ninetieth, and the third on the ninety-eighth day, besides many others at shorter periods. He quotes also, from the *Mémoires de l'Academie Royale de Chirurgie,* a case of dislocation of the thigh, said to have been successfully reduced two years after the accident. M. Dupuytren is of opinion, that after so long a period any attempt to reduce the limb is rather hazardous, and in this he will probably be joined by most surgeons. The cases, however, we have alluded to, seem to show that it is impossible to fix precisely any period after which prudent attempts at dislocation ought not to be made; and that when no unfavourable circumstances exist, hopes of effecting reduction may be entertained, even in luxations of very long standing.

MIDWIFERY.

88. *Observations on Obliteration of the Vagina.* By Cæsar Hawkins, Esq.—There is a great variety in the congenital deformities, or accidental adhesions, or new growths, which are found in the generative organs of females, producing some impediment in their different functions, some of which are of little consequence, and easily remedied; others are of more importance, and require the most delicate and skilful surgical operations for their cure.

Nothing is more common in young infants than for some adhesion to take place between the sides of the labia, uncleanliness or some other cause producing inflammation of the mucous membrane; the adhesion being such as occasionally to leave only a small opening near the urethra, and to draw attention by the pain or inconvenience experienced in micturition. The remedy for this adhesion is very simple; the forcible separation of the labia by the thumbs or the probe, or a slight incision with a knife, being sufficient to lacerate the adhesion, and a little piece of lint dipped in oil, preventing their subsequent cohesion.

Sometimes, again, there is such a prolongation of the hymen over the orifice of the urethra, as to produce much difficulty in making water. A case of this kind is related by Warner, in his cases in surgery, in which the symptoms resembled those in stone, and after existing several years, were cured by an incision. The most remarkable instance of this sort, however, is one related by Cabrolius, (Obs. Anat.) in which the hymen was imperforate, and the urethra completely obstructed, so that no urine could be discharged by the natural passage, but it was evacuated from a tumour, projecting about four inches from the navel, and formed probably by the urachus. Cabrolius made an incision into the urethra, and tied the tube projecting from the abdomen, the patient, who was nearly twenty, being cured. In the Phil. Trans. there is an account of a case where the urethra was similarly obstructed by caruncles growing from the orifice after delivery.

Besides these malformations, which obstruct the flow of urine, and may therefore be discovered and remedied in children, there are other natural and accidental impediments to the sexual functions, the existence of which is not usually ascertained till the time of puberty or marriage. The obstruction may be either partial or complete, and it may be situated at the orifice of the vagina, or higher within this passage, or in the mouth of the uterus itself.

The hymen is often so firm in texture, that although an opening in the centre allows the menstrual secretion to be discharged, yet an incision is necessary for the consummation of marriage, or, (if conception has taken place in spite of this obstacle,) to facilitate parturition, such an incision being easily effected, as a director can be passed through the opening, and thus all risk is obviated. Ruysch, (Obs. Chirurg.) met with an instance in which a second membrane was found higher than the hymen, and requiring a second incision during parturition. A similar partial obstruction to the function of generation is formed by contraction of the vagina, from the use of strong astringents, (Saviard, Obs. Chir.) from small-pox, (Beckerus de Paidioctoniâ inculpatâ,) from lues venerea, (Benivenius de Abdit. Morbor. Causs.) and still more frequently from accidental lacerations and cicatrices in consequence of violence during parturition, of which numerous instances are met with in several authors, which have been cured by tents, by several small incisions round the obstructed part, by dilatation on a director, &c. great care being necessary to keep up the the dilatation for a considerable time, to prevent subsequent contraction. The most remarkable instance of this obliteration, while the menstruation continued, is in Beckerus, (op. citato,) as the secretion was discharged by the rectum, and pregnancy took place pseudothyro intromissis voluptatibus; the laceration, and subsequent cicatrization, having been so extensive as to obliterate the whole of the vagina intermediate between the urethra and rectum.

In these cases of partial obstruction, where pregnancy has taken place, it is probably adviseable to operate as early as possible, so that dilatation may be effected, and the parts properly cicatrized before delivery; there must otherwise be considerable danger of more extensive laceration taking place during the expulsion of the child. The operation is one which necessarily requires great caution; but as an opening exists, through which conception has occurred, there is at least a certain guide to the operator, who is in much less danger of injuring the bladder or rectum than in cases of complete obliteration, though the difficulties have appeared so great that Smellie even advises the performance of the Cæsarian section where there are large cicatrices and adhesions in the vagina and os uteri. Callisen also gives directions for the vaginal Cæsarian section, where the os uteri has been closed by inflammation.

The malformation becomes still more serious when no orifice is left by which the menstrual secretion may be evacuated; this fluid being thus retained in the uterus and vagina, producing great disturbance of the health, and even becoming fatal if not discovered in time for the performance of a proper operation for its cure. The symptoms arising from retention of the menses from such a cause are accurately described by Sabatier, (De la Médecine Operatoire,) copied into S. Cooper's Surgical Dictionary, (Art. Vagina imperforate.) One circumstance, however, scarcely adverted to by Sabatier, is the sympathy of the mamma with the uterus, exemplified in the case I have narrated, and which sometimes proceeds so far as even to establish a vicarious secretion from this gland; the same thing having also been observed, " per vias aeriferas, urinarias, alvum, digitos, cicatrices, oculos, nasum, aliasve partes."—(Callisen.)—Of course, however, some exaggeration or misconception has arisen in many of these cases, so that

I would not be considered as a believer in many of the cases referred to in the quotation.

The similarity in the symptoms of such cases to those arising from pregnancy, and the injurious suspicions often excited, have been frequently pointed out; the resemblance they bear to cases of amenorrhœa, and the necessity of manual examinations, are also evident from the instance just related. The operation for imperforate hymen is generally a very simple one, as the fluid retained in the vagina and uterus distends the membrane, so as to point out exactly where the incision is to be made. It must not be forgotten, however, that the operation, however skilfully performed, is not wholly unattended with danger. In the last instance in which I witnessed the operation, the patient died in consequence of inflammation of the peritoneum. The fluid which is retained is in general perfectly free from putrefaction, however long the disease may have lasted, (see Mem. de l'Acad. de Chir.) though the rule is not without exception, (Sabatier, op. cit.) Where putrefaction takes place, death may often result from the irritation produced by this cause on the constitution; and even where it does not occur, yet suppuration ensues after the retained fluid has been evacuated, and the employment of opiates and soothing injections becomes necessary to obviate the irritation which is excited. But some danger arises from the mere quantity of the retained fluid, which may be so great as to produce rupture of the fallopian tubes into the cavity of the peritoneum, (De Haen, Ratio Medendi.) Smellie mentions a case where three pints and a half were discharged by operation, and half a pint more came away subsequently, of the consistence of butter-milk, a quantity sufficient to distend the uterus, as in a case of pregnancy; and in the absence of the natural contraction of this organ, very likely to be followed by severe irritation, or fatal inflammation. In the case I have narrated, I carefully abstained from pressure, but allowed the fluid to be expelled by the contraction of the uterus, and the pressure of the abdominal muscles; the discharge in this manner taking place very slowly, in consequence of the consistence of the fluid, which is usually like treacle. Attention to this rule I believe to be the principal means of avoiding dangerous results.

Where the malformation is situated not at the orifice, but within the vagina, an operation becomes much more difficult and dangerous. Sir Astley Cooper mentioned to me a case in which he had made incisions to form a passage to the uterus, and had cut through not less than two inches of membrane without perfectly exposing the cervix uteri, though the result was successful, as it was followed by pregnancy. A lady, after eight years suffering, was operated on, and the surgeon passed his finger into a large cavity, from which a good deal of blood escaped, and which was believed to be the vagina; the patient died, however, in three days, and it was discovered that the cavity was that of the bladder, the death having been the consequence of the escape of the menstrual secretion into the abdomen, from a rupture of one of the Fallopian tubes.—(Sabatier, op. cit.)

The difficulty of the operation is necessarily still greater when the obliteration is situated in the orifice of the uterus itself, (not the os uteri in the sense in which the term is employed by many authors, who allude to the subject of this paper, by which they mean the vagina,) unless the cervix is distended and elongated by the fluid so as to communicate a sense of fluctuation to the finger. Several directions for opening the uterus when thus enlarged, and containing menstrual fluid, or when the cervix is obliterated subsequent to impregnation, will be found in Callisen, Syst. Chir. vol. 2, ccccxlviii.

Callisen, (op. cit.) remarks, "Accidentalis vel symptomatica vaginæ concretio totalis vix unquam occurrit." Such cases are, no doubt, more rare than the instances in which some small passage remains open for menstruation, and have been seldom recorded by modern surgeons, while much attention has been bestowed on the less important cases of imperforate hymen, a neglect which has induced me to throw together these remarks; but several cases are described by older authors, and I refer particularly to Beckerus "De Paidioctoniâ inculpatâ," and Roonhuyse, "Med. Chir. Obs. Englished out of Dutch by a careful hand." The latter author, for instance, relates a similar case to that which I have detailed, where a woman had her vagina so completely obliterated by gangrene after delivery, "that she never had her menses any more." Having dilated the vagina with a speculum, the closed part was opened from above downwards by a lancet tied to the end of the finger. A pessary was afterwards employed, but neglected by the patient, and in a subsequent confinement a further operation became necessary, but the patient was allowed to be so long in labour before it was performed, that she died in three days.

These cases of obliteration of the vagina after delivery, are much more difficult to relieve by operation than most of those in which there is a congenital deficiency. It is probable that they scarcely ever occur without considerable loss of substance by sloughing, the consequence of which is the approximation in a greater or less degree of the rectum and bladder and urethra to each other, and their junction by a hard semicartilaginous cicatrix, unyielding, and difficult to divide. The intricacy and difficulty of the case are necessarily dependent on the extent to which the obliteration has taken place; whether the sides are wholly brought together, or two or three inches of the vagina are firmly united, as in the latter case there will not be the distention of the vagina above the obliteration, separating the bladder and rectum from each other, and defending them where they are most loose, and where there is consequently greater risk of injuring these viscera. The operation becomes still more delicate when the sides of the uterus are also united together, which appeared to be the case in a patient of my friend Mr. Mayo, on whom he twice performed an operation, (at the last of which I assisted,) and succeeded in restoring part of the canal, though not in reaching the cavity of the uterus. There was in this case, however, no accumulation of menstrual secretion, and the health of the patient was restored, so that in all probability great part of the cavity of the uterus was obliterated, and the function of menstruation gradually ceased.

The operation is generally directed to be performed by making a perpendicular incision, but it appears to me to be much better, in most cases, to cut through the cicatrix transversely, *i. e.* with one flat side of the scalpel towards the rectum, and the other towards the bladder; in which direction, I imagine, with attention to the anatomy of the parts, there must be much less risk of wounding either of these viscera than when the edge of the knife is held upwards or downwards, and there can scarcely be any risk of injuring the peritoneum, as the vagina is so little connected with it, that the puckering of the cicatrix is not likely to implicate this membrane. I need only repeat the necessity of attending to the after-treatment, in the same manner as after the operation for imperforate hymen, and to the emptying both the bladder and rectum in all these cases previous to the operation.—*London Medical Gazette, September*, 1829.

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39. *Case of a Still-born Child that had been retained in the Uterus thirteen calendar months.* By Peter Cullen, Esq. Surgeon, Sheerness.—The subject of this extraordinary case is a small active woman, aged thirty-eight, in good health, and the mother of seven children, exclusive of this. About the beginning of July, 1828, she missed the catamenia, which should have appeared at that time, and soon after found herself pregnant. In October following, she quickened, and felt the motions of the child till January, when they ceased and never returned. She had continued to increase in size till that time, but afterwards decreased, and felt only a sensation of a lump in the lower part of the belly, towards the left side, which sensation continued till her delivery. Her health was good; and she continued as active as ever.

At this time, (January,) she consulted me, when I gave it as my opinion that her child was dead, and that she would be delivered of it on or before the completion of the nine months. She engaged me to attend her.

I heard nothing more of her till the 19th of August, 1829, when passing by her house, I was called in, and found her in great pain, like labour. An examination discovered it to be so; and about half an hour afterwards she was delivered of a male still-born child, followed soon after by the placenta. The child seemed to have died about the fifth or sixth month, which corresponds with her account. It measured in length between nine and ten inches; weighed six ounces; was much reduced, shrivelled, and emaciated; of the colour of tanned leather, without fœtor or any disagreeable smell. I have it by me now, immersed in spirits. She is at this time, (the 28th of August,) doing well.

There is no reason to doubt the accuracy of this woman's statement, she being of good character, and all the circumstances of her condition well known to her neighbours. She fancied, after the month of January, that her pregnancy had gone off, and that all the symptoms which she had had were such as are customary to women at what they term the turn of life, or final cessation of the menses, of which she had seen none since her conception in July, 1828; and was, therefore, rather surprised when I told her she was in labour. But her age being only thirty-eight, and the circumstance above detailed, preclude the idea of the "turn of life" with her.—*Lond. Med. Gaz.* 1829.

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90. *Cæsarian Section.* By Dr. Fr. Muller, of Loewenberg.—The subject of this case was a woman æt. 33, of good constitution, but whose bony system was extensively deformed by rachitis. After two days of ineffectual labour, the upper aperture of the pelvis measured, in its antero-posterior diameter, not more than two inches and a half; and the cavity of the pelvis, was, in some parts, only eighteen or twenty lines; the waters had escaped, and the child exhibited distinct signs of life: the mother was greatly exhausted. Under these circumstances, the Cæsarian section was decided upon, and performed in the linea alba; the child was extracted along with the placenta: the hæmorrhage was not very great; the wound was immediately closed, and had perfectly healed on the forty-second day after the operation.—*Bull. des Sc. Med. from Rust's Magazin, Vol. XXVIII.*

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91. *Discharge of a Fœtus piecemeal, through a Spontaneous Opening in the Abdomen.*—A pregnant woman, aged thirty-three, near her full term of gestation, had a fall from a considerable height, which brought on syncope, and followed by profuse flooding and pain in the abdomen; these symptoms yielded to a vigorous antiphlogistic treatment, but returned about a month after the accident, without being accompanied by real labour pains: the movements of the child had ceased since the fall. After a few days, an inflammatory tumour formed in the umbilical region, which caused a very painful burning sensation. The genitals were tumid and slightly swelled; the os uteri had not dilated. The tumour gradually increased in size, and after four days spontaneously burst, and discharged a large quantity of very fetid serous pus; the aperture gradually became larger, and, on examination of it, the fœtus was felt, and extracted in pieces, and completely putrid. During this operation the uterus repeatedly contracted, and the infusion of chamomile flowers, which was injected into the wound, escaped through the vagina; the lochia were discharged partly through the vagina and partly through the wound. Under the use of tonic medicines, the patient regained her strength, and the wound was completely healed seven weeks after the extraction of the fœtus.—*Ibid.*

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92. *Absorption of the Placenta by the Uterus.*—In our last volume, p. 244, we published some cases by Dr. Naegele, which seem to show that the placenta when retained after the delivery of the child, is sometimes absorbed by the uterus. A very interesting case illustrative of the same fact, is related by Dr. Gabillot, of Lyons, in the *Journal de Méd. Prat. de Bordeaux.* A woman aged twenty-eight years, the mother of three children, had an abortion, without any known cause, between the fourth and fifth months of pregnancy. The fœtus was born alive.

A considerable quantity of liquid blood was discharged before and after the expulsion of the child. When Dr. G. arrived the cord was attached to the placenta, which seemed to adhere firmly to the uterus. He waited, in vain, for the recurrence of uterine contractions which might permit him to deliver the placenta; the uterus closed and the hæmorrhage entirely ceased. The third day milk fever made its appearance: the abdomen was a little swelled and painful in the epigastric region, and the pulse strong. Dr. G. bled the patient in the arm, with the double object of lessening the contraction of the uterus and preventing its inflammation. The lochia were scanty, almost serous, and inodorous. Dr. G. was extremely careful to examine all the discharges from the vagina, but could not discover any that could induce him to suppose that the placenta was detached in pieces and was discharged with the lochia. The patient's health was re-established, the menses returned three months afterwards, she became again pregnant, went her full term without any accident, and was delivered a year and some days after the period of the abortion. The child was very large; Dr. G. examined the placenta carefully; it did not present any remarkable appearance.—*La Clinique, Aug.* 29, 1829.

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93. *Cephalotripsy.*—Dr. Baudelocque, nephew, has presented to the Academy of Sciences, a memoir on a new process of his own invention, for performing embryotomy. The different methods that have been hitherto devised for breaking in pieces the fœtus, Dr. B. shows from the results of the operations of embryotomy performed in the Hôspice de la Maternité, during a period of six years and a half, that this operation is very dangerous for the mother, proving fatal to more than one-half of the cases. Besides, the employment of the sharp crotchet, and the other instruments hitherto used, always requires a considerable time, from an hour at least, to two or three hours. The instrument which Dr. B. has invented, and which he calls *cephalotribe*, is a strong forceps, the blades of which are solid, and are sixteen lines broad and three lines thick; they are also curved like the forceps for seizing the head above the superior strait, and have a joint similar to that of Smellie's forceps. Finally, the handles, which are thick, large and rough, that they may not slip in the hands of the operator, are perforated at their extremity to receive a screw with three threads, the direction of which are very oblique, an arrangement destined to give great rapidity to its rotation: this screw is moved by a winch six inches long, which increases the force of pressure of the instrument. M. Baudelocque says that the cephalotribe compresses the head of the fœtus with such force that the bones of the vault and of the base of the cranium are crushed by it in an instant; that the substance of the brain escapes by the openings of the face, but that the hairy scalp resists almost constantly this violent pressure, at least such has been the result in the experiments made by Dr. B. at the Hôpital des Enfans-Trouvés, upon subjects who died some days or even weeks after birth. He estimates the power of the instrument as 165 to 1. Dr. B. has employed it in one case, and with success.—*Archives Gén. Oct.* 1829.

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94. *Case of Rupture of the Uterus, terminating Favourably.* By Thomas H. Brock, M. D.—A healthy negress, about 18 years of age, was taken in labour with her first child. When called to her, I found the head within the uterus, with only a trifling dilatation of the os tincæ pressing very forcibly upon the perineum, forming the perineal tumour, and with so much force that I thought the uterus, with its contents, would be expelled through the os externum. I abstracted blood from the arm, and supported the perineal tumour as much as I could; but in spite of all my exertions, the force of the pains continuing, the uterus was rent upwards, from the os uteri towards the fundus, for at least six inches, and the child, with the placenta, was expelled through the os externum, with only a slight laceration of the perineum.

What was still more extraordinary in this case, the patient recovered without any untoward symptom, and two years afterwards gave birth to another child, with no more inconvenience than from the common occurrences in natural labour.—*London Medical Gazette, Jan.* 17, 1829.

MEDICAL JURISPRUDENCE.

95. *New Mode of Employing the Nitrate of Silver as a Test for Arsenic.* By Patrick Forbes, Professor of Chemistry, King's College, Aberdeen.—"The following mode of procedure," Dr. Forbes says, "avoids all the sources of ambiguity arising from the presence of muriatic acid, or any of its combinations, or of the alkaline phosphates; and it is so simple, that any person, at all capable of performing chemical experiments, may conduct it in a satisfactory manner.

"1. The suspected liquid must be carefully filtered, and if very viscid, may be diluted with *warm* distilled water. If after filtration it has colour, it should be diluted with distilled water till the colour has *just* disappeared. A solution of nitrate of silver, (which precipitates free muriatic acid and all its combinations, decomposes all the alkaline phosphates, and precipitates the phosphoric acid in combination with the silver, but has no effect by simple affinity on arsenious acid,) is then to be dropped into it till all precipitation ceases. The liquor must again be filtered, and solution of nitrate of silver added, when no precipitate will appear if sufficiency of nitrate of silver has been formerly used. If any precipitate do appear, an *excess* of nitrate of silver must be added, and the liquor again filtered. Take now a small glass rod, and dip the point of it in a solution of pure ammonia, and just touch the surface of the liquor with it; in a few minutes, if any arsenious acid be present, abundance of the well-marked yellow precipitate of arsenite of silver will diffuse itself down through the liquor.

"2. Great care must be taken to add very little of the pure ammonia. The reason is, that the pure ammonia in excess has the power of dissolving the arsenite of silver. This property of ammonia affords, therefore, a second decisive test; for, after the precipitate has been fully formed, it is only necessary to add ammonia in excess, when, if the precipitate be arsenite of silver, it will on stirring be perfectly dissolved, and the liquor will appear colourless as before.

"3. By adding nitric acid to this colourless liquid till the ammonia is neutralized, the precipitate of the arsenite of silver may be again made to appear, which affords a third proof of the nature of the precipitate.

"4. The precipitate may now be collected, mixed with black flux, (both being made quite dry,) put into a glass tube, and the arsenic sublimed and condensed in its metallic state.

"It will be observed, that I have not directed the contents of the stomach to be boiled before the test is applied. The reason of this is, that it is wished to prevent the union of the arsenious acid with any free alkali which may happen to be accidentally present, which would prevent the success of this process. The application of *warm* distilled water on the contents of the stomach in the filter will, however, be found sufficient to carry along with it all the arsenious acid, and will not in any way interfere with the future steps of the analysis.

"The use of nitrate of silver employed in the above manner in the detection of arsenious acid recommends itself by its simplicity, and by the ease with which the substances employed may at all times be procured. But it by no means supersedes the employment of sulphuretted hydrogen, which also affords excellent indications of the presence of this poison. Every liquor supposed to contain arsenious acid should be subjected to both these reagents; and if both these tests exhibit the appearances which ought to follow their use if arsenic be present, there cannot remain the smallest doubt on the mind of the analyst, and he will be enabled to give his testimony with the most unhesitating confidence.

"If any one wishes to satisfy himself of the accuracy of the method now detailed, he has only to make a mixture of any muriates, alkaline phosphates, solution of arsenious acid, decoction of onions, coffee, &c. and to proceed as above directed.

"It deserves attention that the precipitate must be guarded from the *direct rays* of the sun, which will immediately turn it black from the presence of nitrate of silver and vegetable matter."—*Edin. Med. and Surg. Journ. Oct.* 1829.

96. *Experiments on the Effects of Violence on the Body after Death.* By Robert Christison, M. D.—In what follows relative to the effects of violence on the body after death, I shall first relate the experiments I have had an opportunity of making, and then the general considerations which the results of the experiments may suggest. It may be premised, that my inquiries have been confined to the effects of laceration of the spine, and of blows on various parts of the body, inflicted between an hour and a half and eighteen hours after death. The effects of blows inflicted at a still earlier period, is also a subject well worthy of experimental investigation; but I have not hitherto been fortunate enough to find the proper opportunities. As the imitative appearances, however, which are caused by violence in the dead body, are connected chiefly with the blood retaining its fluidity and coagulability, and as these properties are retained longer than two hours after death, it is highly probable that injuries inflicted at an earlier period would not be materially different in character.

Experiment 1st.—I attempted to investigate the subject by experiments on the dog. For this purpose, a large dog being strangled, and the hair on various parts of the head, trunk, and legs being shaved, heavy blows were inflicted on these spots with both the round and sharp ends of a hammer. Some of the blows were struck five minutes after death, others not till two hours afterwards, by which time the stiffening of the joints had commenced. In twenty-four hours the body was examined; and I was unable to detect the slightest trace of injury in the seat of any of the blows. These results correspond with others which have been obtained by Professor Orfila. In a dog, which was struck violently with a stick twenty minutes after death, there was no effusion of blood, even though the thigh-bone had been fractured by the blows in several places.* The two next experiments, however, will show that the facts now mentioned establish little more than the impossibility of studying the present object of inquiry on the lower animals.

Experiment 2d.—The subject of this experiment was the body of a female thirty-three years of age, rather full in habit. She died of three weeks' illness, which appeared to have been fever, with cough and dyspnœa, throughout its whole course, and *purpura simplex* for two or three days before the close.

An hour and three quarters after death, the trunk and neck being warm, but the face and limbs rather cold, the joints of the legs slightly stiff, and lividity not formed, several heavy blows were inflicted with a stick across both shins, on the forepart of the thighs, on the breast, and on the side of the neck. In less than ten minutes deep bluish-black discolorations followed the blows on the breast and neck. Two hours and a quarter after death the head was bent forcibly down upon the chest. Twenty-three hours after death a severe blow was struck with a stick over the crest of the *os ilium*, and caused ruffling and comminution of the cuticle.

The body was examined twenty-five hours after death, having lain during the interval upon the back. The face, back, and sides were very livid. When the skin was cut into, even where the tint of the lividity was deepest, the coloration was so superficial as not to be referrible to a portion of the skin of appreciable thickness. The marks of the purpura consisted of an incorporation of black blood with the whole thickness of the true skin, in spots about a tenth of an inch in diameter.

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* Cours de Medecine-Legale, i. 709.

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At the seat of the blows on the shins I could find only one small, faint bluish-black discoloration on the outside of the right leg. The true skin was not altered there in colour. In one or two small detached spots there was a faint discoloration of the cellular tissue under the blows, depending on slight redness of the interstices between the adipose cells. On the thighs the blows were shown by faint stripes consisting of bluish-black points. The mere outer surface of the true skin was reddish; and the interstices between the adipose cells of the cellular tissue beneath were here and there slightly injected with dark blood. On the breast and neck there were dark, bluish-black stripes, as deep in tint as any contusions inflicted during life, but without swelling. The colour corresponded with the prominent part of the stick. A thin layer of the outer part of the true skin had a similar but paler tint; the deeper part of its substance was white. The thin cellular interstices between the adipose cells of the subjacent tissue were here and there much injected with fluid, black blood; but there was no extravasation into the cells themselves.

On each side of the cervical and dorsal spine, between the middle of the neck and middle of the back, a little black fluid blood was extravasated here and there among the fibres of the spinal muscles. The yellow ligament connecting the first dorsal and lowest cervical vertebræ was entirely lacerated, so that the finger could be introduced into the spinal canal. Between the upper cervical and fifth dorsal vertebræ black fluid blood was effused into the loose cellular tissue covering the dura mater of the chord, and likewise under the periosteum, covering the inside of the posterior part of the rings of the vertebræ. The posterior ligament of the spine was not injured. There was not any effusion into the cavity of the sheath.

The lungs crepitated every where, and contained little blood. The right cavities of the heart were gorged with blood, which both there and in the great vessels was uniformly but very loosely coagulated. In the subclavian veins it was fluid.

Next day, in the seat of the blow struck twenty-three hours after death, the exposed surface of the true skin was dry and brown; but no blood had been effused into the substance of the skin or under it.

Experiment 3d.—In this instance the subject of experiment was the body of a man thirty-eight years old, who died in the third week of fever and dysentery, not much emaciated.

Three hours and a quarter after death, the body being warm, the limbs very slightly stiff, and no lividity perceptible any where, some severe blows were struck with a stick on the left side of the back. Discoloration did not immediately ensue as in Experiment 2d. Seventeen hours and a half after death, when the body was quite cold, and all the joints stiff, more blows were struck on the right side of the back. The marks of the blows made fourteen hours before, were quite distinct. The head was then bent forcibly down on the chest. The body lay on the back till it was inspected forty-seven hours after death.

The face was livid, the lips black, but there was no lividity on any other part of the body.

The blows inflicted three hours and a quarter after death were marked each by two long narrow lines of dark lividity, with an intervening colourless stripe, corresponding with the prominent part of the stick. On cutting through the skin, I found redness of the mere surface of the true skin, but the rest of its substance, as well as the cellular tissue beneath, quite natural. The marks of the blows inflicted seventeen hours and a half after death, consisted of dryness and brownness of the surface of the skin, without darkness or effusion.

Among the spinal muscles in the neck and upper part of the back, black fluid blood was here and there effused between their fibres. Between the third and fourth, as well as between the sixth and seventh cervical vertebræ, the whole yellow ligament of the spine was lacerated, except at the mere tips of the spines. A considerable quantity of fluid blood was effused into the loose cellular tissue between the dura mater and ligamentous covering of the spinal canal posteriorly, and likewise between that covering and the bone itself. There was not any effusion within the sheath. The posterior ligament of the spine was uninjured.

The contents of the *vena cava abdominalis* consisted of a yellow fibrinous clot, with much dark thickish fluid. The blood in every part of the spine was very fluid and dark. The great vessels were every where well filled. The intestines were a good deal injected with dark blood; the mucous coat of the colon and rectum was much inflamed, and here and there ulcerated.

Experiment 4th.—The body of a young woman considerably reduced by cholera, which proved fatal in its chronic stage, was struck four hours after death, while warm, with a stick. On subsequent examination, it was found that wherever the cuticle had been comminuted, the mark was dry and brown; but nowhere could I detect any other discoloration of the skin, or any effusion in the cellular tissue beneath.

Experiment 5th.—The subject of the following experiments was a stout young man who died three weeks after an injury of the head, followed by *meningitis* and suppuration of the arachnoid.

In two hours the limbs being rather stiff and the back slightly livid, several heavy blows were struck with a mallet on the back. The body was inspected five hours afterwards. The lividity, which was deep and completely formed, had a deeper tint where the blows had been struck than in the immediate neighbourhood. At one place, where the cuticle had been abraded by the blow, thin florid blood was effused on the surface of the true skin. Nowhere was the substance of the skin infiltered or discoloured, or different in short from the places where lividity existed without a blow having been struck. At one spot under the seat of a blow, there was an exceedingly scanty injection of blood into the membranous interstices between the adipose cells. The back at this time was warm, the hip-joints flaccid, the other joints stiff.

Blood drawn from the jugular and femoral veins eight hours after death, flowed out quite fluid, and in a few minutes formed a firm coagulum, with separation of serum. The clot was firm enough to bear tossing from hand to hand without breaking. Blood drawn from the femoral vein an hour and a half later, and which was losing its fluidity, formed on standing a thick, diffluent mass, with separation of serum, but without a proper clot.

The general conclusions to be drawn from the preceding facts, may be considered as they regard external contusions and internal hæmorrhage.

In respect to *External Contusions*, the experiments show that for some hours after death blows will cause appearances, which in point of colour do not differ from the effects of blows inflicted recently before death; that the discoloration generally arises, like lividity, from an effusion of the thinnest possible layer of the fluid part of the blood on the outer surface of the true skin, but sometimes also from an effusion of thin blood into a perceptible stratum of the true skin itself; and that dark fluid blood may be even effused into the subcutaneous cellular tissue in the seat of the discolorations, so as to blacken or redden the membranous partitions of the adipose cells, but that the last effusion is never extensive.

It can hardly be doubted that the appearances now described will exactly imitate slight contusions inflicted during life. But I conceive that the blows in the latter case must be trivial.

When a blow inflicted during life is more severe, it may have the following effects, few or none of which, so far as we know, can originate in violence after death:—1. There may be swelling from the extent of the extravasation. This is certainly never caused in the dead body. 2. When the violence has been applied a few days before death, there will be a yellow margin round the black mark, which is another appearance that cannot be formed except during life. 3. There may be clots of blood in the subjacent cellular tissue, either with or without swelling. This appearance I have never seen accompanying contusions caused in the dead body; but it may be doubted whether clots might not be formed, if the injury was inflicted very soon after death, and had the effect of lacerating a considerable vessel in the neighbourhood of loose cellular tissue. 4. In the instances in which the blood does not coagulate at all after death, contusions caused during life may be recognised by the extent of the effusion into the cellular tissue. In a part not liable to be infiltered by its depending position, and not in the vicinity of a large vein, a deep effusion of fluid blood, which fills and distends the cells of the cellular tissue, can hardly be produced on the dead body. 5. Perhaps one of the most characteristic signs of a contusion inflicted during life is incorporation of blood with the whole thickness of the true skin, rendering it black instead of white, and increasing its firmness and resistance. This sign may not be always present, for, as every one knows, a blow may cause extensive extravasation below the skin, without affecting the skin itself. But when present, I am disposed to consider it characteristic, because I have never been able to produce it in the dead body, and it is not easy to conceive how such a change can be wrought in so dense a texture as the skin, without the force and agency of the living vessels.

It is impossible to fix absolutely the limit of the interval beyond which contusions cannot be imitated by violence applied to the dead body. It appears to vary with the state of the blood and the time which elapses before the body cools and the joints stiffen. Sometimes the appearance of contusions can hardly be produced two hours after death, *(Experiment 5th;)* sometimes they may be slightly caused three hours and a quarter after it, *(Experiment 3d;)* but I should be inclined to think this period very near the extreme limit. Wherever the warmth of the body and laxity of the muscles were not considerable at the time the injury was inflicted, we may be sure that the appearance of contusions cannot be considerable, *(Experiment 2d.)* It is probably, therefore, only on the trunk, that even in the most favourable state of the body, namely, when the blood remains altogether fluid, any material mark of contusion can be produced so late as two hours after death, *(Ibid.)*

As to *Internal Hæmorrhage*, it is plain that if in the dead body a considerable blood-vessel, and more especially a vein, be lacerated so as to open into an extensive cavity or shut sac, there will be more or less effusion of the fluid part of the blood into the cavity. And even if the aperture in the vessel communicate only with the cellular tissue, percolation will take place to a notable extent, particularly when the level of the part is low in relation to the rest of the body.

The hæmorrhage and percolation will be peculiarly distinct in the cases in which the blood does not coagulate at all after death; for it seems then to acquire even a greater degree of fluidity than it possesses during life. We must not suppose that extravasations of blood within the body are not vital, merely because the effused blood is found fluid. Although vital effusions are usually coagulated, they are not so always; and in particular, they are often fluid in the spinal canal. Professor Bernt has mentioned such a case, the effusion having been caused by fracture of the cervical vertebræ;* M. Ollivier met with another, in which the effusion was caused by a wound of the middle meningeal vein with a small sword;† and Mr. Chevalier relates another, in which hæmorrhage was spontaneous.‡ In all of them the blood effused into the spine was fluid, and in

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* Beitrage zur gerichtl. Arzneik. ii. 231.

† De la Moelle epiniere, p. 254.

‡ London Med. Chirurg. Transactions, iii.

Bernt's case it was fluid every where. A circumstance worthy of mention here is, that the blood may continue permanently fluid in some parts or organs, while it coagulates as usual throughout the body generally, or perhaps in the heart alone. In the subject of Exp. 2, it was coagulated in the heart, but fluid in the subclavian and spinal veins; in Exp. 1, it was firmly coagulated in the great veins of the abdomen, but quite fluid in the vessels of the spinal canal. The late Dr. Mertzdorff of Berlin, in a paper on the effects of blows after death, has taken notice of this diversity in the appearance of the blood, and says it commonly appeared to him that the blood of the vessels within the head and spine, in the subclavian veins and in the *vena portæ* was fluid, even when it was coagulated in the other vessels.* I have often had occasion to make the same remark. The inference to be drawn from the fact is, that the inspector must not hastily assume extravasations of fluid blood in these parts as having taken place after death, because he finds the blood coagulated in the heart and subordinate vessels, but must examine the state of the blood in the vessels adjoining the extravasation.

It may not always be easy to distinguish internal hæmorrhage according as it occurs before or after death. Neither can I pretend at present to examine the subject in all its bearings. If any of the organs in the cavity bear marks of compression by the effused blood, the effusion must have been vital. So likewise, if the cavity into which the hæmorrhage has taken place be filled with blood, or if any of the softer viscera be comminuted or broken down or injected by the blood bursting through their texture, or if the hæmorrhage be considerable in relation to the size of the vessel, or have evidently proceeded from an artery, and be extensive in proportion to its size. If the effused blood be coagulated, and the coagulum not broken down, it must have taken place either before death or very soon after it. A state of the blood, the reverse of that mentioned under each of the foregoing propositions, will render the date of the hæmorrhage at all events equivocal. A small or even moderate effusion from the rupture of an artery of considerable size could hardly have occurred during life. An effusion of fluid blood from vessels in the neighbourhood of which it is coagulated must have occurred in the dead body. The most doubtful appearance of all is, when the effusion is fluid, moderate in quantity, unaccompanied by the rupture of any considerable vessel, but connected with fluidity of the blood throughout the body, or in the vessels near the cavity into which the hæmorrhage has taken place.

The interval after death, within which vital hæmorrhage into the internal cavities may be imitated by violence to the dead body, will vary with the qualities of the blood. When the blood has not lost its power of coagulating in the body, the violence must be applied before it coagulates; which appears to happen soon after the stiffening of the muscles begins. When it continues altogether fluid, there seems no limit to the time at which imitative hæmorrhage may be produced, except great decay of the body. In Experiment 3, as well as in the body of the woman Campbell, it was produced about eighteen hours after death. At this period all the changes must have occurred which the body undergoes prior to putrefaction; and when putrefaction has begun, imitative hæmorrhage may be caused still more readily, nay without the cooperation of external violence.—*Edinburgh Medical and Surgical Journal, April*, 1829.

CHEMISTRY.

97. *Analysis of the Ipecacuanha Branca, Root of the Viola Ipecacuanha.* By M. Vauquelin.—The root of the ipecacuanha branca is of a pale white; divided into many branches of the thickness of a writing pen, much twisted, and

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* Horn's Archiv. fur Mediz. Erfahrung, 1823, i. 280.

contracted at unequal intervals. Its fracture is short, the odour of it disagreeable, the taste acrid and nauseous; the ligneous part is thicker than the bark. The substances which compose this root are as follows by weight:—Emetine, 1.50; resin, 0.60; gum, 0.20; albumen, 0.30; starch, 3.20; matter crystallized in scales, 0.85; ligneous matter, 7.00; fatty matter and wax, an indeterminate quantity: total, 15.95; loss, 1.05.—*Journ. de Pharm.*

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98. *Rosaic Acid in Human Urine.*—M. Henry has observed in certain cases of acute rheumatism, accompanied by nervous fever, that the urine has been of a very red colour, and produced an abundant deposit on cooling. On analysing the secretion in such cases, he found that it was very acid, that phosphoric acid and phosphate of lime were very abundant, and that the uric acid had almost entirely disappeared, and been replaced by rosaic acid in large quantities.—*Ibid.*

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99. *Observations on the Composition of Diabetic Urine.*—M. Chevallier has lately analysed the urine of a diabetic patient, and found that the saccharine matter contained in it possessed the property of crystallizing. In this respect it did not resemble the ordinary sugar of diabetes; it bore in fact the closest resemblance to the sugar of beet-root or sugar-cane. The process by which he procured the crystals was as follows. The urine being subjected to a boiling temperature in a retort, albumen was coagulated. This was separated by filtration, and to the clear fluid the subacetate of lead was added in excess. A precipitate which was thus formed was removed, and the filtered fluid was next subjected to a stream of sulphuretted hydrogen gas to throw down the excess of lead. The resulting fluid was concentrated by evaporation, at first rapidly, then slowly, and in a few days crystals were formed. They had a saccharine taste, were changed by fermentation into alcohol, and gave oxalic acid by the action of nitric acid. When M. Chevallier announced this observation at a meeting of the Academy of Medicine, Vauquelin hinted that it was not improbable that the urine of some diabetics might become saccharine in consequence simply of the saccharine principle of the different articles of food passing unchanged by digestion into the blood, and thence into the kidneys. On trying the experiment, however, in a case of *diabetes insipidus*, M. Chevallier found, that although the patient took four ounces of sugar one day, eight the next, and twelve the third day, no saccharine matter could be detected in his urine.

Some remarks on the composition and qualities of diabetic urine, have also been made in the same journal by M. Barruel. He shows that *the urine may be strongly saccharine, although not sweet to the taste.* In a sample of diabetic urine which was sent him for analysis he perceived a faint urinous odour and feeble saline taste, without any mixture of sweetness. It contained obviously *albumen, phosphate of lime,* and *muriate of soda.* On careful analysis he also procured *urea* but no *uric acid.* The presence of sugar was proved by the test of fermentation. The urine being heated to the temperature of ebullition, and the flakes of coagulated albumen then removed, the filtered fluid was mixed with yeast, and placed in an apparatus which allowed the gas disengaged to be collected. In three hours fermentation began, in seven hours the evolution of gas was copious, in thirty-six hours it was finished. The carbonic acid gas collected corresponded to a quantity of sugar amounting to an eighteenth of the weight of the urine used: and the fermented liquor when filtered had a strong spirituous taste and yielded alcohol by distillation. It was in the residue of the distillation that *urea* was detected. This was done simply by evaporating to the consistence of syrup, leaving the liquor exposed to cold air for twelve hours, filtering and adding nitric acid, when abundant crystals of nitrate of urea were formed. M. Barruel has twice before discovered urea in the saccharine urine of diabetes, and in all the three instances the proportion appeared to him to be as great as in healthy urine. He hence thinks that urea in its usual proportion, in all probability is never wanting in that secretion during diabetes.—*Journ. de Chimie Médicale, Jan.* 1829.

100. *Mode of Detecting Hydrocyanic Acid.*—According to M. Orfila, the best means of detecting the presence of hydrocyanic acid in a solution, is by adding to it the nitrate of silver, which precipitates it in the state of cyanide of silver. —*Nouv. Bib. Méd. July,* 1829.

101. *Preparation of Morphia, without the use of Alcohol.*—Having observed that it was easy to separate morphia from narcotine, by the use of very weak muriatic acid added to perfect neutralization, MM. Henri and Plisson founded upon it the following process. Five hundred parts of opium are to be divided into small strips, and infused thrice, each time in 500 parts of water, at 80° or 100° Fahr. with 20 parts of muriatic acid. The residue is to be pressed, all the liquor put together, and a very slight excess of weak solution of ammonia or caustic soda added. This deposit is to be collected and carefully washed. The mother liquors are to be acidulated, concentrated, and decomposed in the same manner. Potash, soda, and ammonia, retain a large quantity of morphia in solution when the liquors are diluted, but much of it is obtained by concentration.

The deposit occasioned by the caustic alkalies is yellowish, and composed principally of resin, caoutchouc, morphia, and narcotine, coloured by a brown matter. It is to be frequently washed with water, slightly acidulated, and assisted by a moderate heat until the liquor ceases to be saturated; a slight excess is to be allowed. The liquor is then to be filtered and evaporated; it contains a little resin and extractive matter, and much muriate of morphia, (the part which remains unacted upon, contains with the resin much narcotine;) it is to be concentrated considerably, and when brown crystals have been formed, they are to be slightly washed, and then purified twice by animal charcoal, and recrystallizations from water. The muriate of morphia thus purified, is to be dissolved in a small quantity of water slightly acidulated, and decomposed by a slight excess of ammonia; after which it is to be put upon a filter, washed and dried. Four hundred parts of opium gave from 26 to 27 parts of morphia, free from narcotine. It is yellowish, but solution in alcohol and crystallization gives very white crystals.—*Journal de Pharmacie.*

102. *Decomposition of Corrosive Sublimate by Vegetable Bodies.*—According to the experiments of M. Fabian, the mucilage of quince seed, *(semence de coing,)* and that of salop, decomposes corrosive sublimate the instant it is mixed with its solution; but the decoction of marshmallow does not produce the same effect, and the extract of liquorice only partially.—*Ibid.*

MISCELLANEOUS.

103. *Preservation of Leeches.*—M. Bertrand, physician to the Pacha of Egypt, is said to preserve leeches so that they will draw blood every three or four days for three years, by pressing them so as to make them disgorge the blood, and then dipping them several times in sweetened water.—*Archives Générales, Oct.* 1829.

104. *London Dispensary for the Diseases of the Ear.*—At a recent meeting of the governors of the London Dispensary for Diseases of the Ear, it appeared that since the establishment of this charity in 1816, upwards of 8440 patients afflicted with deafness of the ear have been admitted; 3410 cured, and 2379 relieved, including several cases of deaf and dumb.

AMERICAN INTELLIGENCE.

*On the Professional Testimony of Physicians in Criminal Cases.**—The general principles of medical jurisprudence have been well taught and elucidated in Dr. Cooper's "Collection of Tracts," and the more extended and full "Elements" by Dr. Beck. The methods of discriminating violent crimes from natural fatality. and the necessity of the utmost cautiousness in deducing an opinion from post mortem appearances, are in those works, and in various other detached performances, elaborately stated and exemplified. So that so far as science is concerned, there appears to be nothing wanting to capacitate a physician to be a safe witness in cases where he may be called on to make a responsible declaration of his judgment. But it is certainly of the last consequence—involving alike the professional reputation of a deponent, the cause of justice, and the claims of humanity, that a physician should be informed of the great, and in many cases, essential weight which attaches to his testimony. The same person can scarcely be called twice to view a case of murder; the practical experience of the individual members of the faculty must therefore be limited, and while in the process of acquirement, the most alarming consequences might ensue. Besides this, persons not accustomed to visit courts of justice are apt to be disconcerted by the novelty of the situation; they are not apprised of the importance which belongs to the language and manner of a witness in the impression made upon a jury; they very often lose sight of their obligation to tell "the whole truth," from the belief, encouraged by trepidation or ignorance, that the particulars withheld can have no bearing on the question, because they are not interrogated on them distinctly. The leisure hours of a physician are not likely to be spent in the infected atmosphere of a criminal court room, and no class of its heterogeneous audience exhibits such symptoms of impatience as the summoned doctor.

It is a maxim of law, *cuilibet in arte sua credendum est,* credit is to be given to the testimony of a man in matters pertaining to their own professions or arts. Of such evidence *in specie,* there is virtually no avoidance: an alleged mistatement of one may be contradicted by another, but the jury must decide upon that representation which is best supported by professional competency. In questions of mercantile usage, evidence has been accepted, in contradiction of the ordinary understanding of language. In a case where a ship had been insured on the representation that it was to sail in *October,* and it did actually sail on the 11th of October, the insurers were declared not to be bound by the policy, because it was proved to be the general understanding of merchants in such cases, that "the month of October" meant to signify only from the 25th of October to the 1st or 2d of November. So in the case of a will alleged to be forged, the testimony of post-office clerks, experienced in detecting the forgery of franks, was admitted to prove that the writing was in an imitated and not a natural hand. If the maxim is thus so strictly acted upon, as to give an artificial sense to plain words, and place estates at the disposal of negative testimony, founded only upon professional knowledge, it is evident that there is the utmost necessity for carefulness and preparation on the part of those who thus establish the law. The opinion of physicians is principally required in questions of lunacy and of murder, and although for the sake of greater distinctness, I shall confine my observations to the latter case; they may be taken as applicable to every juridical occasion in which the faculty may be required to act.

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* We are indebted to a distinguished member of the Philadelphia Bar for the following interesting observations.

The evidence of a physician in a criminal prosecution is not to be considered only as a part of the general testimony, from the preponderance of which on either side, the verdict is to be found; but in the majority of cases, it stands substantive in its influence. His positive assertions may in every ordinary instance acquit, though not so universally convict the accused.[*] If in an alleged murder by poisoning, it be even proved that the prisoner administered to the deceased a certain drug, the whole issue must turn upon the questions whether the drug is poisonous in itself, and whether the quantity taken under the peculiar circumstances of the case could be fatal. If either of these points be answered negatively, a prisoner could not be convicted, let the other circumstances be as strong as possible against him. A striking instance of the consequence attached to medical opinions, and the danger of hasty conclusions is recorded, in which four physicians, after dissection of the body, declared their unequivocal belief that the deceased died of the effects of poison, on which representation the accused was convicted and executed. In this case, the celebrated Dr. John Hunter was a witness, who, on his first examination, unequivocally declared that the appearances on which the unanimous judgment of the dissectors was founded, did not give the *least suspicion* of the existence of poison; and although he qualified this assertion in some measure on his cross-examination, yet it is evident from his whole testimony that he considered the phenomena to be very far from conclusive indications of the effects of poison.[†] And it was long held in England as strongly corroborative evidence of the guilt of a mother accused of destroying her illegitimate offspring, if the lungs of the infant would float in water, an effect which is now well known to be produced by other causes.

So with respect to wounds, especially where some time has intervened between their infliction and the death of the sufferer—the prisoner's life is in the hands of the medical witness. His testimony must establish or destroy the first step in the conviction of the accused—that a crime has been committed; that is, whether the deceased died in consequence of the wound. In indictments supported by circumstantial evidence merely, this is the indispensable link for which no other probabilities can be substituted. Suppose a man to be found dead in his bed at an inn, and his fellow lodger is discovered in possession of his money. Here would be a strong presumption of his guilt. He is tried upon a charge of murder—the supposition is by means of suffocation—no marks of violence being visible. If a physician can testify that there are certain appearances wanting which always, or even generally, attend death by suffocation; or if by dissection there are clear indications that death was caused by apoplexy, or internal rupture, no jury could suppose the accused guilty of any crime more aggravated than theft from a corpse.

A decided opinion should by no means be hazarded unless the data on which it is founded be indisputably clear. A fellow creature, under suspicion of a capital offence, is entitled to every sympathy that charity may afford. His existence is often thrown upon the merest chance, and a mysterious concurrence of circumstances has sent many an innocent man to an ignominious grave. The law, however, professes to regard the accused as innocent, until his guilt be established; and when it allows him, as it does, the advantage of every legal or mental doubt, and even the *shadow* of such a doubt, it militates against the spirit of that indulgence to deny him the full benefit of a medical doubt. Of course, the testifying physician should be guarded in his expressions, and imagining himself to be the arbiter of the culprit's fate, should state his evidence in such a manner as should evince his own decided opinion, whether or not the violence alleged has been committed. This course requires that all the probabilities and possibilities in favour of the accused should be expressed, and that the medical witness should rather suppose himself, with the judge, required to be the counsel of the accused, than his prosecutor. I was present at the trial of a man indicted for the murder of his wife, who had no presumption of guilt to contend with, excepting that he went out in her company, and returned to announce that she was drowned. Her body was found, and her head indicated a bruise received in her fall against the side of a vessel, or wharf, between which she fell. The coroner, a respectable and humane man, but whose cautiousness had been put off its guard by familiarity with the scenes of violence of which he was the frequent spectator, commenced his testimony by confidently saying, that he was called to view the body, "and found the left eye very much injured *by a severe blow* inflicted *not with a stick, but with a fist.*" An eye-witness of the alleged murder could not have testified more, and it did not occur to the worthy coroner that an eye-witness alone could know as much.

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[*] In our father land, this doctrine is probably not received in the latitude here expressed; but in this country, and especially where I write, it may be safely pronounced as law.

[†] Since this article was written, I have seen a strong monitory "case of supposed poisoning with arsenic," in the last number of this journal, p. 237; and I may also refer to the notice of the "Hints for the Examination of Medical Witnesses," in the same number, p. 162.

But a physician is not only called upon to state his deductions from facts of his own observation, but to express an opinion on circumstances and appearances as seen and related by others. This adds to the delicacy of his situation, for, although not morally or legally responsible for the correctness of any thing beyond his own conclusions, yet he must always feel an uncertainty with respect to the correct statement of the facts themselves, particularly when given by inexperienced persons, who may have neglected to observe other indications than those specified, which would totally change the complexion of the case. He should therefore himself take care that the witness, on whose statements he is to found his opinion, should be fully interrogated: if he has neglected to make a sufficiently minute investigation, or delivers his statement in vague terms, which indicate carelessness, or other disqualifications, the physician ought to express to the jury that it would be unsafe to place entire reliance on his relation, and that they must receive his testimony thus modified.

These observations are sufficient to excite the attention of the faculty on a subject in which they, as well as the bar, are interested. It is only necessary that the importance attached to professional testimony should be generally known, that a physician may not be suddenly called into court with impressions that, with entire innocence on his part, might inflict serious injury upon society.

H.

Swaim's Panacea—Mercury detected in it by Chemical Analysis. By Mr. CHILTON, of New York.—The Committee of the Medical Society of this city, at the time the report on the sarsaparilla syrups was in progress, engaged Mr. Chilton to examine if Swaim's panacea contained any mercurial preparation. His examination was not completed at the time the report was ready for publication, and it was not deemed of sufficient importance in elucidating the nature of the remedy, to wait its completion, as the report had been chiefly founded on a very extensive employment of the syrups, prepared according to the formulæ in most repute in France, in the Bellevue Alms-house, and State Prison of this city. The appearance some months after of the Report of the Committee of the Philadelphia Medical Society on Quack Medicines, exhibiting abundant practical evidence that Swaim's preparation contained corrosive sublimate, seemed to render it unnecessary to publish the result of Mr. Chilton's investigation. Observing in the August number of the American Medical Journal, Professor Hare's account of having detected mercury in the syrup in question, and also, in the succeeding number, the notice of Dr. Emmons, he having discovered globules of quicksilver in the bottom of one of Swaim's bottles, I thought it would be as well to make public in the same journal, the minutes furnished by Mr. Chilton, rather for the purpose of making known the way he arrived at the same result as the before-mentioned gentlemen, than as at all necessary to support a point already established by sufficient authority. C. D.

New York, Dec. 1829.

Mr. Chilton's Minutes of Chemical Examination of Swaim's Panacea.—An examination of Swaim's panacea was undertaken for the Committee of the Medical Society, with a view of ascertaining whether that nostrum contained corrosive sublimate. The following experiments were instituted.

1st. To a portion taken from a bottle of the panacea, obtained from one of Swaim's agents, diluted to transparency, sulphuretted hydrogen and the hydrosulphurets were added, but without decisive effect, owing probably to the protecting presence of the syrup.

2d. The remaining portion of the bottle was put into a retort bedded in a sand-bath, and connected with a receiver. On the application of heat, water impregnated with essential oil, distilled over, which from its peculiar odour was recognised to be the oil of winter-green, (ol. gaulther.)

3d. The remaining syrup was transferred to a queen's ware dish, and evaporated slowly to dryness. By continuing the heat, carefully avoiding a subliming temperature, the mass was reduced to an imperfect charcoal.

4th. After pulverizing this carbonaceous mass, it was digested in cold dilute nitric acid for forty-eight hours, with frequent agitation. The decanted solution, which was brownish, together with the washings of the residuum, were reduced by evaporation nearly to dryness. On adding water to this highly concentrated fluid, a lively yellow colour was developed, indicating the presence of mercury in the form of nitrous turpeth; but not being absolutely certain that the appearance was not fallacious, the subnitrate was redissolved, and submitted to the galvanic test in Sylvester's manner. A gold ring was whitened in a few seconds, which was regarded by all the chemists who saw it as conclusive evidence of the presence of mercury.

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A Description of an Anomalous Pectoral Muscle. By Thomas H. Wright. M. D. (Extracted from a letter to Dr. Godman.)—Your zeal and credit as a teacher of anatomy, and still more, your published labours tending to illustrate that interesting department, demonstrate the sentiments with which you are likely to receive any thing curious or new on the same subject. For this reason chiefly, I offer you the following brief account of an anomaly in the muscular system, of which I know no former example. Another motive for the communication is, to learn of you whether any account of a similar lusus is recorded by anatomists, as it is not convenient just now to examine authorities on this point.

A man aged 64, died in the Baltimore Alms-house, of chronic phthisis, on the 8th of this month, (December, 1829.) On dissecting off the front integument of the thorax, preparatory to exploring the state of that cavity, a novelty was discovered in the muscular structure of that region, which was very properly made the subject of special investigation. Immediately under the superficial cellular tissue, a broad fasciculus of fleshy fibres, was seen displayed in the longitudinal axis of the thorax, parallel with the sternum, and just within its costal line. It presented boldly and fairly as a distinct straight thorax muscle, extending from one inch below the head of the sternum, and stretching down the front face of the chest, crossing and covering the sternal end of all the ribs, except the two upper, and interlacing itself by a beautiful tendinous sheet, half an inch broad, with the fascia propria of the external oblique where it unites with the sheath of the rectus superior. The origin of this "pectoralis rectus" was double; one origin was by a short, flat, silvery tendon, one-fourth of an inch broad, at the side of the junction of the upper third of the sternum, with the second or middle portion of that bone; and to unite with this head, a long, nearly round, strong, and beautiful tendinous chord descended from the inferior sternal edge of the sterno-clavicular articulation. Both heads took origin directly from bone, (the sternum,) and not from fascia or ligaments. A delicate fan-like sheet expanded from one side, the axillary aspect of the long tendon or head, and lost itself in the fascia of the great pectoral, where it rises from the clavicle. The two heads of the lusus, (rectus,) having united, fleshy fibres spread out immediately, forming a distinct handsome muscle, about one inch and half broad, (thicker than the strap muscles of the neck, sterno-thyroid or hyoid,) and of nearly equal width all the way down, until it crossed the lower (abdominal,) border of the chest, where it contracted suddenly into the flat tendon before mentioned, half an inch wide, inserted into the fascia of the obliquus and rectus abdominis superior. The inferior face of this extra or anomalous muscle, covered the sterno-costal origins of the pectoralis major, lying upon them by loose cellular tissue, and no where interlaced with or dipping into the fibres of the pectoralis. It could be, and was, with ease separated from the pectoralis, without violence to either, and the hand passed freely under it, from origin to insertion. It was, it short, a most beautiful, broad, (riband,) muscle, running in a straight line down the face of the thorax, crossing all the ribs below its origin, where they join the sternum, and implanted into the strong fascia of the belly. Shall we call it pectoralis rectus, pectoralis rectus biceps, or pectoralis abdominis? Use doubtful, except as auxiliary to the intercostalis, as a levator abdominis in inspiration. The muscle described was not an azygos, but of the symmetrical order; it had its fellow on the opposite, side, precisely like in location, form, origin, and distribution. I have small skill in drawing, rendered less by an old and bad hurt of the hand, or would send you a sketch of these new respirators.

My intelligent friend Dr. A. L. Warner, resident in the Alms-house, had the good fortune to find, and the good sense to discriminate and trace accurately these curious muscular appendices, and by his courtesy I was invited to examine them.

Baltimore, Dec. 13*th,* 1829.

Note by Dr. Godman.—The only distinct indications we have met with of this anomalous muscle are subjoined. As remarked by both the authorities quoted, this is the regular arrangement of the muscle in many mammiferous animals. If it were proper to bestow a name upon a rare and accidental structure, that of *rectus thoracis,* would be most accordant with the nomenclature of the muscles with which it is in relation. Vesalius, in his fifth plate of muscles, has figured on a human subject, a muscle that answers very well to the description given by Dr. Wright, but states in his text that it is drawn from an *ape.*

"Nonnunquam, ut in canibus, fasciculus musculi recti tendineo et tenui principio a priore parte cartilaginis septimæ, sextæ, et quintæ vel et quartæ tantum costæ, et supra eas a tendine musculi obliqui externi abdominis ortus tum carneus et crassior mox vero denuo tenuior et tendineus tandem partim prioris ossis sterni superioris faciei sese inserens, partim cum musculo pectorali majori cohærens, partim tendinem musculi sterno et cleido mastoideus contingens per pectus adscendit."—*Sœmmering, Corp. Hum. Fab.* 1, *p.* 150.

"Le muscle droit présente quelquefois une quatrième languette que s'élève de la partie externe ou interne de son bord supérieur, plus ordinairement de l'interne, et se porte à la quatrième côté. Cette conformation se rapproche de cella qui'l offre dans la plupart des mamifères ou il atteint ordinairement la seconde côté. Elle conduit aussi par une gradation insensible à la formation d'un muscle sternal externe anormal.—*Meckel, Manual, II. p.* 120.

Case in which the Heart of a Fowl was arrested in the Œsophagus, where it remained for Fifteen Days, and proved Fatal. By E. Denton, M. D. of Chardon, Geauga County, Ohio.—On the 3d of January, 1826, I was requested to visit Captain Skinner, aged about seventy, in consultation with my friends, Drs. Johnson, of Ashtabula County, and Rosa, of Painesville, the latter of whom was the captain's family physician. The account the patient gave of his case, (Dr. Rosa at this time being absent,) was, that while taking a new year's supper with his friends, a mouthful of "chicken-pie" was arrested in its passage to his stomach—that, although he immediately perceived himself totally unable to swallow any thing, he suffered very little inconvenience, except from inanition, not having taken any food since early the preceding morning—that Dr. Rosa was called in, January 2d, who made numerous ineffectual attempts, with probangs of different sizes, to push the obstructing body into the stomach—and that he was unable to refer the uneasinesss to any particular part of the œsophagus. Respiration was not in the least impeded.

The introduction of a probang somewhat different from those which had been used, was proposed, but objected to, as was any further attempts of this nature. A tobacco enema was now proposed and administered. In a few minutes nausea supervened, and something was brought up, which, on examination, proved to be a portion of the muscular part of the fowl, probably from the breast, in size about one-fourth of a hickory nut. He now immediately declared himself entirely relieved, and on being handed some bland liquid, swallowed it with ease. The fluids of the stomach were soon ejected, but the vomiting was neither violent, long-continued, nor attended with vertigo, fainting, or any other alarming symptom. For several days he appeared to be convalescent, and we flattered ourselves, that his recovery, though slow, would nevertheless be certain. In this we were disappointed, for though he complained of nothing, swallowed without difficulty whatever was presented, whether liquid or solid, there was considerable arterial excitement, and an evident failure of strength. This state of things continued with little alteration till the 15th, when he died.

For the following account of the post mortem examination, which took place eighteen hours after death, I am indebted to the politeness of Dr. Rosa.

"On opening the thorax, we found both lobes of the lungs bearing strong marks of congestion and inflammation on the posterior and inferior portions, including about one-half of the whole mass. The œsophagus was traced to the cardiac orifice of the stomach, when a hard substance was found, which proved on examination to be the heart of a full grown domestic fowl, measuring about eight lines in diameter. This substance did not appear to have undergone the least chemical change in its organization, although it had been sustained in a temperature of about 95° of Fahr. for about fifteen days! From the cardiac orifice for about four inches upwards, a sloughing of the mucous coat of the œsophagus had taken place to a considerable extent. The stomach bore slight traces of inflammation, and contained about a pint of dark-coloured matter resembling coffee-grounds, and of considerable consistence. No other traces of disease was found, except such as would be considered consecutive to the original cause."

Operation of the Trephine for the removal of a portion of Carious Sternum. By Abner Hopton, M. D. of Clinton, N. C.—On the morning of January 7th, I was requested, by Drs. Thomas and Buckner Hill, to visit a patient of theirs, (a black girl,) whom they said was affected with a cancerous sternum, and which, (according to their opinions,) required an operation for its removal.

I saw her at nine o'clock in the morning, and received the following account of her case. She was attacked about seven years ago with some obscure disease; the pathological characters of which were not thoroughly known, but which finally terminated in an ulcer on the superior clavicular portion of the sternum of the left side. This ulcer had from that period continued at intervals to discharge a thin sanies; and had at length affected the bones with caries; it was of the indolent kind, and about two inches in diameter; it was neither irritable nor painful.

She was now, (at the time of my seeing her,) much reduced, feeble, and emaciated; and evidently labouring under marasmus. An abscess had formed on the inner margin of the sterno-cleido mastoid muscle, and about three inches above the clavicle. I punctured it, and a quantity of thick, whitish pus was discharged. I inquired whether she had ever been affected with swellings in the glands of her jaws and throat; or swellings in any other part of her glandular apparatus, and was informed that she had not. But upon passing my fingers under the angles of her jaws, and pressing gently on the glands, she complained of pain. I perceived, consequently, that these were tumid, and a little inflamed.

From the history of this case, its symptoms, and the characters it now exhibited, I was of opinion it could not be the disease the above gentlemen were led to believe; nor did I hesitate a moment to pronounce it a case of scrofula. I therefore objected to an operation, as it would not only aggravate the disease, by acting as an additional source of irritation, but might probably hasten the death of the patient. And as to the idea of an operation producing a cure, or even affording the slightest prospect of relief, I conceived not only hypothetical, but altogether inconsistent with the true pathological nature of the disease. However, my opinions were overruled, and the operation decided on, which was performed in the following manner, and in the presence of Drs. Thomas and Buckner Hill, and Dr. Thomas Bunting.

I made two elliptical incisions about two and a half inches in length, so as to include all the diseased soft parts. This incision I commenced opposite the head of the clavicle, and continued it down towards the middle of the sternum. Having thus removed all the ulcerated integument, I then proceeded to remove all that portion of sternum which I found to be carious; and succeeded but indifferently, owing to the instruments employed for the purpose. Hey's saw would have been a very appropriate instrument, but it could not be procured in time.

Upon the removal of all the ulcerated bone, as far as we were able to ascertain, and finding that we had entered the cavity of the thorax, and the viscera there appearing to be in their natural state, we considered our object as completed, and proceeded to approximate the edges of the wound as far as practicable by two sutures and strips of adhesive plaster.

The operation was finished in less than forty minutes; and from the manner in which she bore it, it could not have been very painful.

The wound healed in a very short time, though it afforded the patient very little amendment, as she died six months subsequently of scrofula.

On Prolapsus Ani. By J. W. Heustis, M. D.—It has often occurred to me that in obstinate and protracted cases of prolapsus ani, the prolapsed or protruded portion might be safely and advantageously removed. In the last number of this Journal I have seen Dupuytren's operation for this complaint, which Dr. Von Ammon, of Dresden, considers as deserving to be ranked among the most valuable improvements of modern surgery. This operation consists in excising portions from the circumference of the prolapsed bowel, in such a manner as to form a star-shaped wound. The bowel being replaced, it is said that the contraction produced by the healing of these incisions effectually prevents the recurrence of the disease. Two cases in confirmation of this practice are mentioned by Dr. Von Ammon. Now the question is, whether the complete removal of the protruded portion with the knife would not be a less painful and more effectual mode of operating than these partial and interrupted exsections. The parts cut in both instances would be the same, and by the complete circular incision carried round the base of the tumour, the wound would be less extensive; and by the removal of the stricture and the morbid portions, the wound would heal with greater facility. In confirmation of this mode, I hope I may be excused, for the want of a better, in introducing a case from the brute creation. A mule belonging to my friend, Mr. John D. King, of this vicinity, had, for a length of time, been affected with prolapsus ani, which was much swollen, and larger than one's fist. Finding it obstinate and unreducible, he determined to remove it. The knife was accordingly used, and the protruded portion completely excised to the bottom of the indurated enlargement. No hæmorrhage of consequence ensued, and the animal was speedily and entirely restored. Upon this point, in its application to the human species, I should be gratified to see the opinion of some one or other of our eminent surgeons. The disease is frequent and troublesome among children, and provided the dread of parents could be overcome, by being assured that the operation would be attended with little pain, and would be entirely free from danger, they would probably in many instances submit to the operation being performed. Although this complaint, unless when persistent, is neither dangerous nor painful, yet as it is unsightly, and extremely troublesome and disagreeable to young persons, common prudence and humanity would dictate the preference of a little temporary pain, to a protracted and loathsome inconvenience.

Cahawba, December 1st. 1829.

Case of Threatened Abortion arrested by the application of a blister to the sacrum. By Augustus H. Cenas, M. D. (Communicated in a letter to Professor Chapman.)—The following case of threatening abortion, arrested by the application of a blister to the sacrum, after the ordinary means had failed, came lately under my immediate notice in the Womens' Medical Ward of the Philadelphia Almshouse Infirmary; and as it tends to confirm an important fact, to which the attention of the profession has lately been called, by one of its most useful members, (Dr. Jackson, of Northumberland,) I make no further apology for obtruding it upon your notice.

J. D. aged 29, about seven months advanced in pregnancy, entered the Womens' Medical Ward, on the evening of January 2d, with symptoms of threatening abortion. States that three days ago she received an injury from a fall, by which pains were produced having all the characters of real labour throes. These continued increasing until this evening at 7 o'clock, at which time she came under notice.

Symptoms.—Pains frequent, bearing down and occurring at intervals of five or ten minutes, confined principally to small of back and lower part of abdomen, with a slight discharge of mucus, pulse full and tense, skin hot and dry. ℞. Venesect. ℥xvj. An enema of a gill of flaxseed mucilage, and forty drops of laudanum every two hours, together with hot fomentations to abdomen.—11 o'clock. Pulse softer, and skin moist and pleasant, but pains not at all relieved. Ordered blister 6 by 4 inches to be applied to sacrum; injections and fomentations discontinued.

January 3d.—Feels perfectly relieved this morning. Says that as soon as blister began to draw the pain gradually decreased, until in a short time it subsided altogether. Did not sleep last night on account of blister. ℞. Tinct. opii. gutts. xv. which procured sleep.

January 5th.—Uterus perfectly tranquil; but bowels not open since she came in, and complains of colicy pains. ℞. Ol. Ricini. ℥j. Evening—Bowels open freely; pains relieved; feels quite comfortable.

January 6th.—Quite well.

This woman has borne six children, five of which were abortions of from five to seven months, resulting from injuries similar to the above.

Philadelphia Alms-house, January 10th, 1830.

Case of Obstruction and great Enlargement of the Biliary Ducts—Jaundice, &c. By J. P. Hopkinson, M. D.—The following case was met with in the dissecting rooms of the University of Pennsylvania. As nothing of the previous history is known to me, I can describe the appearances found on dissection only. Upon removing the abdominal muscles, the gall-bladder was seen lying upon the intestines, and extending at least four inches beyond the edge of the liver: it was much distended with bile. The hepatic duct was dilated to about one inch in diameter, and each of the branches, which, emerging from the liver unite to form it, half an inch. The cystic duct was enlarged in the same ratio. The ductus communis became suddenly contracted as it entered the pancreas, and a considerable degree of force was required to force the bile into the duodenum, which it entered very slowly. This obstruction arose from a scirrhous enlargement of the head of the pancreas, which was knotty and exceedingly hard. The same condition, but in a less degree, existed in the splenic extremity of it. The duct of this gland was nearly four times its usual size. About half a pint of dark bile was found in the stomach and duodenum, and nearly a pint flowed from the gall and ducts. The biliary ducts were all enlarged, and an incision in any part of the liver caused the bile to flow from them. The external appearance of the liver was speckled, which is not uncommon after chronic affections of this gland. The cellular membrane, fat, ligaments, cartilage, &c. were universally tinged with yellow. The subject of this examination was apparently about sixty years of age.

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Case of Constitutional irritation from the Absorption of putrid animal matter. By Philip E. Milledoler, M. D. of New York.—The following case, which occurred in the person of the relater, presents several points of interest; we extract the account of it from the *New York Medical and Physical Journal* for October last. "On the —, a patient died in one of the venereal wards of the New York Hospital. An erysipelatous inflammation had commenced in the groins, where he had open buboes, in a healing condition, and extended over the abdomen and down upon the thighs. The patient died of peritoneal inflammation. In examining the body after death, a large quantity of puriform matter was found effused in the abdominal cavity. My hands were exposed to this matter, which was very offensive and acrid, in examining the intestines. It was late in the afternoon when the examination took place. On the following morning I felt slightly indisposed, and took a dose of salts, which operated during the day without affording relief. On the contrary, the symptoms increased in severity. A head-ache, which in the morning was trifling, became much aggravated; the skin was dry and contracted. Throughout the day there was experienced a sensation of heat, not permanent, but alternating with unpleasant chilly feelings. There existed much præcordial anxiety and great depression of spirits. Early in the evening my attention was directed to a sense of pain felt in the bend of the elbow and in the axilla; and upon inspection, the glands were found swollen and tender to the touch; red lines were seen stretching from the lower and posterior part of the forearm towards the bend of the elbow, and upon looking at the back of the hand, a small pustule was observed, with an areola of inflammation extending around it.* I was now satisfied that morbid matter had been absorbed, and was producing its baneful effects upon the system. As the hours elapsed, the severity of the symptoms increased; the head-ache became very violent; much pain was felt in the back and thighs; the condition of the pulse I do not remember; the tongue was covered with a whitish fur; the eyes were intolerant of light. Having bathed my feet in warm water, and taken a draught of warm balm tea, I retired to bed. Soon after, the chilly sensations were no longer experienced, but the body became uniformly hot.

About 8 P. M., a medical friend coming in, he was requested to bleed me. After having abstracted a moderate quantity of blood, he was about to desist; I, however, interfered, requesting that the blood might be permitted to flow. This was done, having no definite object in view, excepting that the effect was pleasant at the time; about thirty ounces were taken; while the blood was flowing, and for some time after, the pains were relieved. No sensible perspiration had as yet been effected; with a view to produce it, and relieve my anxiety, which was great, (the head-ache, &c. beginning to return,) I took an anodyne of tinct. opii. gtt. lx., and ℥ss. spt. mindererus. The draught of warm tea was repeated; soon after, a slight moisture was perceived on the palms of the hands, which became general over the whole surface and very profuse.

The relief afforded by this, in connexion with the soporific effect of the anodyne, soon produced sleep, which was undisturbed. In the morning all the violent symptoms had disappeared. Took some mild cathartics, and in a few days felt as well as usual, independent of light debility. The glands remained swollen for some time, but gradually subsided. The pustule on the back of the hand became an ulcer of about the circumference of a pea. It assumed the form of a *Hunterian* chancre. In fact, it was the most complete specimen that I ever saw; nothing was applied to it but a piece of soap plaster, and it remained for a fortnight. Fearing lest there might be something specific in its character, I used, for a length of time, a concentrated syrup of the woods, and diluted nitric acid; at the end of the time mentioned, it healed, leaving nothing but a cicatrix, which still remains.

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* I do not believe that there was any scratch on the hand, but that the surface was entire.

With respect to the treatment of the above case, I am inclined to lay much stress upon the anodyne that was taken after the bleeding. Had the *pain* been permitted to return with violence, being in itself a great source of irritation, especially in a nervous, melancholic temperament, depriving of sleep, and affording an opportunity to the mind to act upon the body, there is but little doubt that the morning would have found me suffering under an aggravation of all the symptoms; the disease would have been more fully established, and its effects more severe, the system, perhaps, being less capable of resisting the irritation, after the exhaustion produced by the large depletion.

Concerning the ulcer on the hand, my present opinion is, that it was merely an irritable sore. The subject from which the poison was contracted, had undergone a full mercurial and alterative course, and at the time the erysipelatous inflammation supervened, there were present none of the characteristics of venereal. From this and other considerations, we have been led to conclude, that there do exist other irritations capable of producing the same appearances, that have been considered the peculiar effect of a specific syphilitic virus."

Case of Successful Extirpation of an Enlarged Ovary. By David L. Rogers.—The subject of this case was a young woman from Ireland, aged 20 years, of a good constitution, and who had enjoyed good health until within two years. From that time to the present she has been tapped for ascites seven times, and the whole amount of fluid discharged by the several operations amounted to sixteen gallons. I performed the operation for the sixth time in July last. After the discharge of water I found the abdomen remained distended by a large tumour occupying all the umbilical region, and extending into the pelvis on the left side. From the history of the case, I considered it an enlargement of the ovary, and suggested the possibility of removing it by an operation. She readily consented to this, and became anxious for its performance. On the 14th of September, after another tapping, and drawing off two gallons of a gelatinous fluid, I commenced the operation, by making an incision through the parietes of the abdomen, in the course of the linea alba, commencing two inches above the umbilicus, and carrying it to the pubes. The cyst of the tumour was firmly adherent to the peritoneum, for at least three inches in extent around the umbilicus. These adhesions, by a careful dissection, were all removed. The tumour was then drawn from the cavity of the abdomen, and the dissection continued in separating it from the broad ligament; this being done, the wound was immediately closed by stitches, and dressed with adhesive plaster. The solid part of the tumour, which was about one-third, weighed three pounds and a half. I was assisted in the operation by Professor Mott, Dr. Alex. Vaché, and my brother, Dr. J. H. Rogers.

It is now twenty-eight days since the operation, the wound has entirely healed, and as yet she has not had one unpleasant symptom.

Case of Twins united by the Umbilicus. By Joshua Martin, M. D. of Xenia, Ohio.—The wife of a gentleman of this vicinity was delivered on Saturday, the 29th of August, at the close of the eighth month of utero-gestation, of two living children, of ordinary size, who were attached together by a round substance of about three inches diameter, commencing at the ensiform cartilage, or lower end of the breast bone, and extending down the abdomen.

The superior part of the attachment was hard and cartilaginous, formed by the ensiform cartilage of the one extending across, and uniting with that of the other; below it was soft, and gave the sensation to the touch of a membranous sac, containing part of the abdominal viscera.

At the inferior part of the connecting medium, the skin was wanting; and at that point arose one umbilical chord, which served both children.

Anastomosis, or union of the superficial veins of the two children, could be distinctly perceived. They were both females, and in every respect natural, except that one had two thumbs on the left hand. I saw them about forty-eight hours after their birth, one of them had then been dead twelve hours, and the other died in a few hours afterwards.—*West. Med. and Phys. Journ. Oct.* 1829, *from Far. Rec. and Xenia Gaz.*

The conformation of these children appears to have been precisely similar to that of the Siamese boys, an account of which was given in our last number. It is much to be regretted that no post mortem examination was made, or attempt made to preserve the life of the child who lived longest, by detaching her from her dead sister.

MEDICAL INTELLIGENCE OF GEORGIA.

Board of Physicians of the State of Georgia.

At the session in December, 1829, the following members appeared: Doctors *Antony, White, Jones, Boykin, Fort, Graham, Dent, T. B. Gorman, Garvin, T. Hoxey, Banks, Weems, Harlow.*

Wm. R. Waring M. D. of Savannah, was elected to supply the vacancy occasioned by the death of *Dr. O. C. Fort.*

Doctors *Harlow* and *Hull* sent in resignations, which the Board declined accepting.

Licences were granted to the following Graduates, on production of Diplomas:

Baily, Stephen, M. D. of Pennsylvania University.
Cohen, G. P., M. D. of South Carolina.
Ellerson, T. H., M. D. of Pennsylvania.
Foster, G. W., M. D. of Transylvania.
Forbes, Clemont, M. D. of South Carolina.
Ingram, Thomas W., M. D. of Pennsylvania.
Loomis, Harris, M. D. of New York.
Owen, Augustin, M. D. of Pennsylvania.
Parks, C. D., M. D. of Pennsylvania.
Patterson, Dugald, M. D. of Pennsylvania.
Randell, Wheeler, M. D. of Bowdoin College, Maine.
Slade, Edwin E., M. D. of Pennsylvania.
Wiley, John B., M. D. of Pennsylvania.
Williams, R. W., M. D. of South Carolina.
Walker, James B., M. D. of Pennsylvania.
Wilson, Josiah S., M. D. of South Carolina.

Licenses were granted to the following gentlemen, after examination and production of Theses:

Atkinson, John, of South Carolina, on Influenza.
Baker, Madison, of Elbert county, on Cynanche Trachealis.
Butt, William P., of Powelton, on Gleet.
Cato, James W., of Powelton, on Paralysis.
Crymes, G. W., of De Kalb, on Bilious Remittent.
Dawson, Thomas H., of Warren, on Mania a Potu.
Estes, Matthew, of De Kalb, on Bilious Fever.
Harden, John M. B., of Bryan, on Inflammation.
Harwell, Thos. G., of Hancock, on Hepatitis.

Hillyer, John F., of Clark, on Secretions.
Horne, James L., of Baldwin, on Dyspepsia.
Holmes, Henry J., of Jasper, on Dysentery.
Johnson, Benjamin, of Petersburg, on Chlorea Infantum.
Long, James S., of Troup, on Intermittent fever.
M'Gehee, Edward T., of Baldwin, on Dysentery.
M'Intosh, Duncan, of Burke, on Cholera Infantum.
Peurifoy, M'Carrell, of Putman, on Hepatitis.
Rogers, Curran, of Monroe, on Ulcers.
Wright, James A., of Putman.
Willingham, Willis, of Oglethorpe, on Cynanche Trachealis.
Wimbish, H. S., of Walton, on Dysentery.
Williamson, William, of Madison, on Congestion.
Underwood, W. J., of Morgan, on Uterine Hæmorrhage.

Dr. Jones having addressed a letter containing his resignation as Dean, it was, on motion,

Resolved, That the thanks of the Board be tendered to Dr. Jones for the very faithful manner in which he has discharged the duties of his office, and that he be informed of the unanimous desire of its members, that he should not withdraw his resignation.

Dr. Jones persisting in declining to serve any longer, it was *Resolved* to proceed to the election of a Dean:—

The following officers were elected for the ensuing year:—

MILTON ANTONY, *President.*
B. A WHITE, *Secretary.*
J. P. GARVIN, *Dean*, in place of
Dr. A. JONES, *resigned.*

The Board then adjourned to the first Monday in December next.

BENJAMIN A. WHITE, M. D. *Secretary.*

CENTRAL MEDICAL SOCIETY.

Milledgeville, Dec. 7, 1829.

The Central Medical Society of Georgia convened in the Representative Hall, on Monday evening at 7 o'olock, according to adjournment. The list of members being called, the following person answered to their names, viz. *Drs. Antony, White, Graham, Hubbard, Dent, H. Branham, T. Fort, Gorman, Cooper, Paine, Jones, Weems*, and *Hoxey*. The 2d. Vice President, *Dr White*, being in the chair, the minutes of the last annual session were read and approved.

A letter of excuse was received from *Dr. John Walker*, corresponding Secretary, which was accepted. He also enclosed a letter from *Dr. Bexley*, corresponding Secretary of the *Medical and Chirurgical Faculty* of *Maryland*, in reply to one addressed to him by *Dr. Walker*, expressing feelings of good will and reciprocity of sentiments, which was read and approved.

Communications being in order, *Dr. A. Jones* read a communication on *Meteorology as productive of diseases*, which was discussed. *Dr. Hubbard* gave notice that he would on to-morrow evening read a paper *On the treatment of fever*. Dr. Jones gave notice that he would on the same evening read a paper *On the use of Calomel in fever. Dr. Weems* related a case in which Arsenic was absorbed by its application to a cancer, so as to produce *paralysis*, which gave rise to some discussion, and the statement of other cases of the active absorption of mineral substances.

The propriety of using cold water, simultaneously with calomel, in fevers, was discussed. The majority seemed to be of opinion that no harm could result from a moderate use of cold water in such cases.

Motions being in order:

On motion of *Dr. Fort*, It was *resolved*, that on Wednesday evening next, the several members of this society in alphabetical order deliver orally, a concise account of the observations they had made, in the several years of their practice, on the autumnal or bilious fevers of their neighbourhoods, and that they state briefly, the character and variety of cases observed, together with the remedies found most beneficial, in each variety of the disease treated by them.

On motion of *Dr. A. Jones* it was

Resolved, That no member be permitted to speak longer that fifteen minutes in discussion at any time, nor more than twice on the same subject, without permission of the President.

On motion, the Society adjourned till Tuesday evening at 7 o'clock.

Tuesday, 7 o'clock, P. M.

The Society met according to adjournment.

The 2d Vice President took the chair. The list being called, the following persons answered to their names: *Drs. White, Graham, Hoxey, Dent, Paine, Cooper, Banks, Fort, Weems, Antony,* and *Jones.* The minutes of the last meeting were read—*Communications* being in order: *Dr. Hubbard* not being present, *Dr. A. Jones* was called on, and read a paper on the *Use of Calomel in Bilious remittent fever,* which was discussed at large. Dr. Hoxey read a paper, in which he related a case of *hairy tumour in the rectum.* The use of cold water in conjunction with calomel was again discussed. On motion, the further discussion of subjects for the present was suspended.

Dr. Cooper moved the following amendment to *Dr. Fort's* resolution of the last night.

Resolved, That each member who may think proper to give their opinions, as regards the cause of fever, and its modus operandi on the biliary apparatus, may be permitted to do so under the direction of the President and Society.

On motion of *Dr. A. Jones,* it was

Resolved, That in all instances, where cases are related to this society by its members, that they be required to commit them to writing, for the purpose of preserving them in the archives of this society.

It was on motion of the same,

Resolved, That any member who wishes it, may one day previously, lay on the table questions touching medical subjects, to be taken up in the order they were handed in at the next meeting.

Dr. T. Fort laid on the table the following inquiry. What is the best treatment of cholera infantum, and what the distinctive marks of that disease as distinguished from diarrhœa?

Dr. R. Banks laid on the table the following question: What number of cases of *Fungus Hematodes,* have come within the knowledge of any member? if any, whether they have known any cured, and if so, by what means?

The following was laid on the table by *Dr. A. Jones:* How far does climate affect the average period of human life, and, if at all, in what manner, or in other words, what are the distinctive marks of the constitution, if any, which are the effects of climate?

On motion of *Dr. Harlow,* it was

Resolved, That it shall be the duty of the President, to select out of the number of subjects proposed by the members, one or more which he shall consider of the greatest practical importance, on which the members shall be considered as bound to give all the information in their power, at the next subsequent session of the society.

On motion, *Dr. Reuben C. Shorter* was proposed and elected a permanent member of this society, and also *Dr. Nicholas Childers* of Macon, and *Dr. James B. Simmons* of Troup county.

On motion, the society adjourned till Wednesday evening at 7 o'clock.

Wednesday, 7 o'clock, P. M.

The society met according to adjournment. The President, *Dr. H. Branham,* took the chair, and opened the meeting. The roll being called, the following persons answered to their names: *Drs. Antony, Boykin, Banks, H. Branham, Cooper, Dent, Fort, Garvin, Graham, Hoxey, Harlow, Jones, Paine, Powell, D. A. Reese, Shorter, Simmons, White,* and *Weems.* The minutes of last evening were read, *Dr. Fort's* resolution being first in order, *Drs. Antony, Banks, Cooper, Dent,* and *Fort,* delivered their observations on the variety and treatment of bilious fever, as observed in their practice. *Dr. Graham* rose in order to deliver his observations, but, on motion, the further discussion was suspended for the evening, *Dr. Graham* being entitled to the floor on Thursday night. On motion, two or three gentlemen were nominated as suitable members of the society, but as it was uncertain as yet whether there would be any vacancies, they were, on motion, laid on the table.

On motion, the society adjourned till Thursday evening at half past 6 o'clock.

Thursday, half past 6 *o'clock, P. M.*

The Society met agreeably to adjournment.

The President took his seat, and having called the Society to order, the following gentlemen answered, as the list was called: *Drs. Antony, Boykin, Banks, H. Branham, Cooper, Dent, Fort, Garvin, Graham, Hoxey, Harlow, Jones, Paine, Powell, D. A. Reese, Shorter, Simmons, White,* and *Weems.*

The minutes of last evening were read.

The discussion under *Dr. Fort's* resolution being again in order, *Dr. Graham* rose and delivered his observations, followed in order, by *Dr. Gorman,* who in the course of his remarks, related a case of extra-uterine pregnancy, where the bones and other remains of the fœtus were discharged through the intestines, and the women recovered.

He was followed by *Drs. Hoxey, Jones, Paine, D. A. Reese, Simmons, White,* and *Weems.* When, on motion, the further discussion was suspended for the present session.

Dr. Fort offered the following in lieu of *Dr. Harlow's* resolution of Tuesday evening: That it shall be the duty of the President to select out of the subjects submitted to him by the members of the Society, two or more questions, to be discussed at the next annual meeting. And it shall be the duty of each member present, in alphabetical order, to submit his experience and views on one of the subjects selected: which was on motion, adopted.

A number of questions having been submitted to the President by the members, he selected the following for discussion at the next annual meeting of the society:

What is the method of treatment in that condition, occasionally occurring in the progress of bilious remittent fevers, in which the extremities are cold, the cutaneous capillaries torpid, the abdomen hot with insatiable thirst and restlessness, the pulse small and frequent, with or without delirium?

What is the cause, history, distinction, character, and best treatment of Cholera Infantum?

What is the history, cause, and best mode of treatment of Typhus Fever?

Can the modification of an Autumnal Fever be traced to the ordinary causes of Bilious Remittent Fever?

On motion, the society went into the election of its annual officers, when, on counting out the votes, the following persons were found duly elected, viz:

Dr. Henry Branham, President.
Dr. Thomas Hoxey, 1st Vice President.
Dr. Tomlinson Fort, 2d Vice President.
Dr. A. Jones, Recording Secretary.
Dr. B. A. White, Corresponding do.
Dr. W. Weems, Treasurer.
Dr. Cooper, Orator.

It was, on motion, Resolved, That the proceedings of this society be published in the Milledgeville papers.

On motion, the society was adjourned till the first Monday in December, 1830, 7 o'clock, P. M. A. JONES, M. D. *Rec. Sec'y.*

University of Pennsylvania.—The number of students at present in this institution is 769. Of these, 394* are medical students. In the collegiate department there are, seniors, 8; juniors, 26; sophomores, 35; freshmen, 28; total, 97. In the grammar schools, 120; in the charity schools, 158.

Harvard University.—The whole number of persons resident at the University, either as graduates or under-graduates, is 424. *Graduates,* candidates for the ministry, 12—theological students, 42—students attending medical lectures, 91—law students, 27.—Total, 172. *Under-graduates,* seniors, 48—juniors, 70—sophomores, 74—freshmen, 55—students not candidates for a degree, 5.—Total, 252.

Transylvania University.—It appears from the catalogue of officers and students, that there were in this institution, in January last, 362 students. Of these there were in the medical class, 200—law class, 19; collegiate department—seniors, 12—juniors, 17—sophomores, 35—freshmen, 17—and in the preparatory department, 62.

Dartmouth College, New Hampshire.—We learn from the catalogue of the officers and students of this institution, published last October, that the number of students was 235; of whom 103 were medical—30 in the senior class—32 in the junior—36 in the sophomore; and 34 in the freshman.

Bowdoin College and the Medical School of Maine.—There were in this institution, in March, 1829, medical students, 100—seniors, 29—juniors, 21—sophomores, 22—freshmen, 35.—Total, 207.

Agency in Paris for the purchase of Books and Apparatus of all kinds.—Induced by the belief that great advantages would result to our literary and scientific institutions, from the permanent residence in Paris of an individual who would act as agent for the purchase of books and apparatus, Dr. N. NILES, a gentleman of great intelligence, and in whom every confidence may be placed, has established himself in Paris, for this purpose. We have reason to believe, that colleges and public libraries, wishing to purchase books or apparatus, may obtain them on the *most advantageous terms* by availing themselves of the services of *Dr. N. Niles, Rue d'Artois, No.* 12, *Paris.*

Physiological Medicine.—Messrs. CAREY & LEA will publish next summer, a translation of Broussais's "*Examen des Doctrines Medicales.*" This work presents the most admirable critical history of medicine that has ever been written, with a satisfactory sketch of the new physiological doctrines. These doctrines are exercising so extensive an influence upon the practice of medicine at the present day, that it becomes the duty of every physician to make himself acquainted with them.

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* This number is taken from the matriculating list; there are about twenty graduates attending in addition.

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QUARTERLY

MEDICAL ADVERTISER.

IN consequence of the extended circulation of the AMERICAN JOURNAL OF THE MEDICAL SCIENCES, the Proprietors intend, in compliance with the wishes of many of their Friends, to increase the facilities for advertising, hitherto possessed by it. For this purpose, a Sheet of Advertisements will be prefixed to the succeeding Numbers of the Journal. All Booksellers, Medical Gentlemen, and others desirous of taking advantage of this mode of announcement, will please address their Advertisements to CAREY & LEA, Philadelphia, by the 10th day of the month preceding that of the publication of the Journal, viz. on 10th July, 10th October, 10th January, and 10th April.

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Philadelphia, January 20, 1830.

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Entertaining these views, and disposed to facilitate, by every means in their power, the progress of students in medicine, the subscribers propose to give a summer course, to commence on the first Monday in April next, and to continue until the last of October. During the winter session of the University of Pennsylvania, the several courses there delivered will be reviewed by examinations.

W. GIBSON, M. D. *Principles of Surgery.*
J. RANDOLPH, M. D. *Operative Surgery.*
C. D. MEIGS, M. D. *Midwifery, &c.*
B. H. COATES, M. D. *Practice of Medicine.*
R. LA ROCHE, M. D. *Institutes of Medicine.*
R. E. GRIFFITH, M. D. *Materia Medica, Medical Jurisprudence, and Botany.*
J. P. HOPKINSON, M. D. *Anatomy.*

The Class will have the privilege of attending the Lectures on Chemistry, by Professor BACHE, at the Franklin Institute.

Philadelphia, January 1st, 1830.

MEDICAL INSTITUTE OF PHILADELPHIA.

The Summer Course of Lectures will begin on Monday the 5th day of April, and end on the Saturday preceding the first Monday of November. The month of August is a vacation.

NATHANIEL CHAPMAN, M. D.
On the Practice of Medicine.

WM. P. DEWEES, M. D.
On Midwifery.

THOS. HARRIS, M. D.
Surgeon U. S. Navy.
On Operative Surgery.

SAML. JACKSON, M. D.
On Materia Medica.

WM. E. HORNER, M. D.
On Anatomy.

JNO. K. MITCHELL, M. D.
On Chemistry.

JOHN BELL, M. D.
On the Institutes of Medicine, and Medical Jurisprudence.

HUGH L. HODGE, M. D.
On the Principles of Surgery.

Philadelphia, January 14, 1830.

HUDSON LUNATIC ASYLUM.

The Subscriber having leased of the Corporation of Hudson, for a term of years, the extensive stone edifice lately occupied as the Alms-house, for the purpose of establishing a desirable and salutary retreat for the insane, he invites the attention of those interested, to its adaptation and favourable location for the purpose intended. It stands on the border of this city, commanding an extensive prospect of the River, the Catskill Mountains, and the varied scenery interspersed. The building is one hundred and twenty feet in front; the centre portion forty feet square, and three stories high, with two wings each forty by twenty feet, and two stories high; also, a well finished basement under the whole, surrounded by gardens and yards suitable for exercise. For ready access by water, beauty of location, and salubrity of air, it cannot be surpassed on the banks of the Hudson.

This building is to undergo a thorough repair, and be put in ample order, by fixtures and furniture, for the reception of patients, by the first of May next.

Its discipline will be persuasive, the diet generous, and due exercise allowed; and its attendants, in kindness and moral deportment, selected with great care.

That such an institution is wanting, the late able and luminous exposé of the Governor of this state, calculated to throw light into the prison of despair, supersedes further comment at this time.

Having embarked in this expensive undertaking; having a double interest in the tender treatment and comfort of some of its intended inmates; as the dietetic course and remedial means will be scrupulously directed by himself; and as his mind has been necessarily directed to the particular investigation of this branch of medical science for nearly twenty years, he sincerely hopes confidence may be inspired, and that the sympathies and co-operation of a generous public will be awarded.

SAMUEL WHITE, M. D.

Hudson, January 12, 1830.

N. B. Communications regarding contracts will be promptly attended to.

Advertisements.

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FOR

MEDICAL INSTRUCTION.

BELIEVING that Physicians cannot singly offer those advantages which late improvements in the plan of medical tuition have opened to the student, the following gentlemen have formed an association for the purpose of mutual assistance in the instruction of their pupils, and of others engaged in the study of medicine.

JOSEPH PARRISH, M. D. *Practice of Medicine.*
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JOHN RHEA BARTON, M. D. *Surgery.*
GEORGE B. WOOD, M. D. *Materia Medica and the Institutes of Medicine.*
SAMUEL GEORGE MORTON, M. D. *Anatomy.*

Lectures will be delivered by these gentlemen, in the summer season, on the branches of Medical Science respectfully attached to their names; and the students will have access to a course of lectures by

CHARLES D. MEIGS, M. D. *on Obstetrics, and the Diseases of Women and Children.*

In the winter season, examinations will be given upon the various branches; and the members of the class will have the benefit of Dr. Parrish's lectures on the principles and practice of Surgery. Upon the payment of a small matriculating fee to the College of Pharmacy, they will also be admitted to a course of lectures on Chemistry, delivered by Dr. Wood, during the winter, in that institution.

The station of Surgeon to the Pennsylvania Hospital, and to the Philadelphia Alms-house Hospital, held by Dr. Barton; and that of Physician to the latter institution held by Dr. Morton, enable the association to offer to those who may enter as students for one year, the advantage of an attendance upon the practice of these Infirmaries.

There will be separate tickets for the summer and winter courses, and a general ticket for the year.

The summer course of lectures will commence in the early part of April, and will continue until the end of October, with a recess during the month of August.

The winter course of examinations will commence early in November, and continue till the 1st of March.

By order of the Association,

GEO. B. WOOD, *Secretary.*

January 23d, 1830.

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